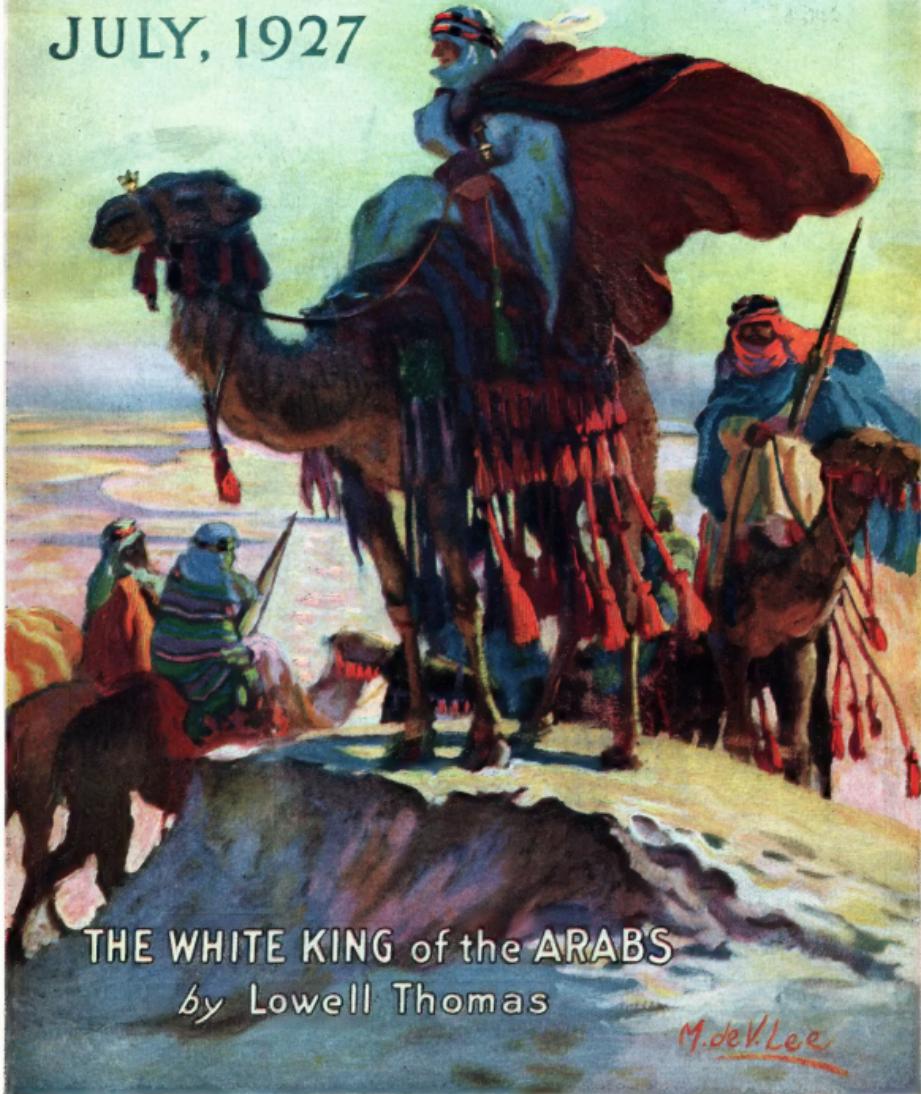


LEADERS OF TO-MORROW — By DAVID LAWRENCE

ST NICHOLAS

JULY, 1927



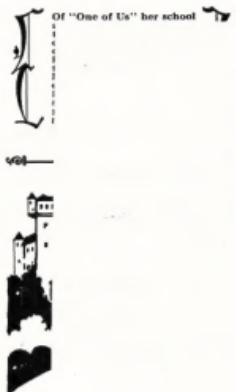
THE WHITE KING of the ARABS
by Lowell Thomas

M. de K Lee

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July, 1927

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The ST. NICHOLAS MAGAZINE

GEORGE F. THOMSON, Managing Editor

VOL. LIV

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No. 9

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MELBOURNE, Berlin
MYSTIC, Mystic
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WONPOSET, Bantam

Indiana

CULVER, Culver

Kentucky

TRAIL'S END, Lexington

FOR BOYS

California

GRETAN, Villa Grande

Colorado

ROCKY MT. NATURE, Long's Peak

KINNICKINNIK, Manitou
NEWAKA, Ward
PERRY-MANSFIELD, Steamboat Springs

Connecticut

CADASH, Colchester
CRYSTAL BEACH, Saybrook
LANTERN HILL, Old Mystic
MELBOURNE, Berlin
MYSTIC, Mystic
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WONPOSET, Bantam

Indiana

CULVER, Culver

Kentucky

TRAIL'S END, Lexington

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TOUR, Ellsworth
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PEACE, Ellsworth
PEACE-ON-WATER, Norway
QUEST, Rockwood
SOKOSIS, Bridgton
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WILD-CROFT, North Windham
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The ST. NICHOLAS MAGAZINE

FEATURES for NEXT MONTH and TO COME

How Lindbergh Did It

A. M. JACOBS

There's nothing new in the news of Lindbergh's flight, but there are details of the mechanics of it that are interesting, and these are covered in the brilliant article by our own "aviation expert" who was in France when Lindbergh landed.

Eight Miles Up

CAPTAIN HAWTHORNE GRAY

The earth is a rather small planet, and viewed from a height of 42,470 feet it begins to assume its true proportions. Few of us have had an opportunity to take a detached view of the globe, and only one man has done it from such an altitude. He tells ST. NICHOLAS readers of this experience.

The Honorable Peter

ALFRED F. LOOMIS

The foregoing announcements deal with the success of aircraft. This story has to do with a cross-Channel passenger-machine that got into trouble. One of Mr. Loomis's best stories, with fine illustrations by T. Victor Hall.

The Girl Who Discovered Herself

BETH B. GILCHRIST

If you had a wealthy aunt who deposited \$500 to your credit in a bank and told you to spend it on yourself within a year, how would you dispose of the sum? That was *Mary Peg's* "difficulty," and the popular author of "*Cindrella's Granddaughter*," "*Trail's End*," and other favorites, tells how she overcame it.

Tommy Dane Goes Hunting

A. GROVE DAY

An American boy in Mexico goes hunting in the Cazador Mountains in celebration of his sixteenth birthday. But far more stirring events than bringing down a deer transpire before he turns his face homeward.

"Shooting" Traffic Cops

BERT G. MITCHELL

The "weapon" was a camera used on a round-the-world trip. Some interesting results were obtained.

Let's Arrange a Canoe Regatta

LEROY WILLIAM HUTCHINS

Some stunts that will make camping and vacation days more thrilling.

Climbing Mount Blanc

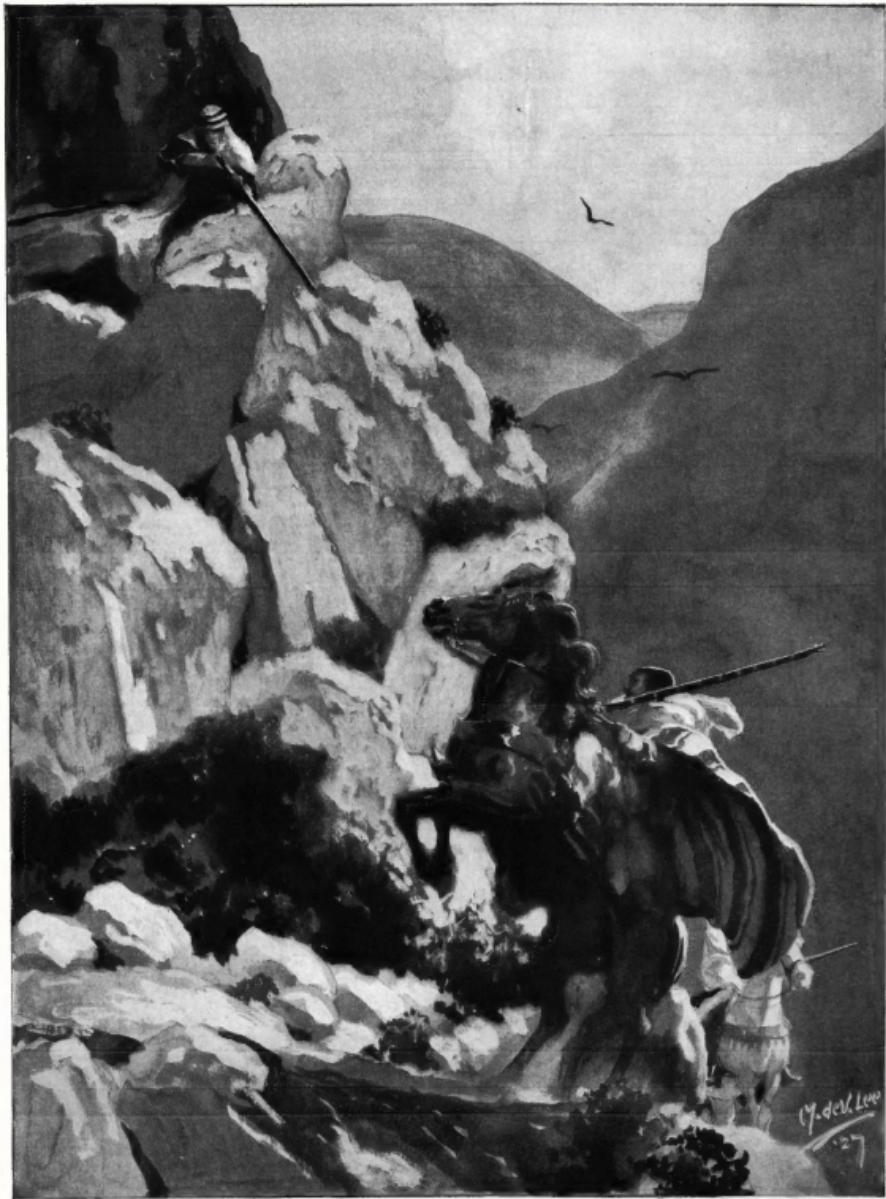
ORVILLE H. EMMONS

Two American schoolboys make the ascent, and one records the experiences with rare skill.

The Sky City

DERIC NUSBAUM

Acoma, one of the Pueblo cities, old when the Pilgrims landed at Plymouth, is described here by a young author whose "*The Great Green Table — Mesa Verde*," published in our July number last year, is well remembered.



See "The White King of the Arabs"

"HE PICKED OFF THE REST OF THE BAND AS THEY CAME UP"

ST. NICHOLAS

VOL. LIV

July, 1927

No. 9

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THE WHITE KING OF THE ARABS

A Boy's Life of Colonel Lawrence

By LOWELL THOMAS

*Author, explorer, and "discoverer" of the mysterious young man
who led the desert warriors in their revolt against the Turks*

ONE of "Ned" Lawrence's first adventures brought him to grief. When he was a little fellow he climbed to the top of a neighbor's roof, higher than his companions dared go. Then he fell. When they picked him up one leg was dangling, and although it finally healed, from then on Ned Lawrence never grew much. But that first disastrous roof-top expedition, instead of dampening his ardor for adventure, merely made him all the more determined. For this lad was to make history for himself and his country. Within a few years he was to win a place in England's hall of fame alongside her most gallant sons, Drake, Clive, Nelson, Raleigh, and Gordon.

The pages of "The Arabian Nights" contain no more picturesque tale than the story of the deeds of this young man who built up an army of wild desert tribesmen mounted on camels and Arabian horses. Ned Lawrence not only freed a country, but he helped win the greatest war in human history, and he even made two of his friends kings of important Oriental countries and placed a third on a sultan's throne.

Ned Lawrence did all this before he was thirty. Our interest in him is increased because he is not a dead hero. But having won fame he now prefers to hide away from the crowds who are curious to see him. At the time these lines are written this young man, who made kings and commanded an army, is somewhere in India serv-

ing as a private soldier under an assumed name, helping his countrymen defend the grim Northwest frontier of the Indian Empire against marauding Pathan and Afghan tribes. I first knew Lawrence, or "Lawrens" as his desert warriors called him, in the days when he was leading his Arab army against the Turks, and here is his story.

He came of a once rich family. They were the Lawrences of Galway, that storm-swept county on the West Coast of Ireland which bears the brunt of North Atlantic gales. Although the exact relationship is uncertain, he comes from the same Lawrences that gave Britain at least three other great heroes; one a knight, Sir Robert Lawrence, who went with Richard the Lion-Hearted to Palestine and there played an important part in the memorable siege of the ancient walled city of Acre. The other two were the brothers, Sir John and Sir Henry Lawrence. Sir John was the viceroy of India during one of the brightest and most glorious periods in British history, the period of the Great Mutiny. At this same time Sir Henry was the governor of one of the central provinces of India with Lucknow as his capital. There are few more stirring stories than that of the siege of Lucknow. Sir Henry and a small band of English men and women, and a few loyal Indian soldiers, held out for four long months against more than forty thousand fanatical natives. In that gallant

defense of Lucknow Sir Henry Lawrence lost his life.

Ned Lawrence's parents had been rich, but the family fortune was lost before he was born; so his parents had moved from Ireland to Wales, and there, in the county of Carnarvon, a county famous as the birthplace of Lloyd George, he made his appearance in this world. There were four boys in the Lawrence family, of whom he was the third. In order to make it easier for their sons to get an education, Thomas Lawrence and wife moved again, this time to the little town a short way up the Thames from London which is the seat of the most famous of all modern universities.

Here at Oxford young Thomas Edward Lawrence, whose chums called him Ned, received the most of his early education. But not all of it had to do with books and tutors.

One of the branches of the Thames is called the Trill Mill Stream. Its upper waters were supposed to be impassable for any sort of boat, even a canoe. There are many narrow culverts across the Trill Mill Stream, and Ned Lawrence with a companion made the entire journey in a tiny flat skiff. They had lights so that they could see while going through the underground parts, and sometimes it was necessary for them to stretch out flat on their boat. Not far away is the river Cherwell, which the guide-books announced as "nowhere navigable." The two boys challenged this statement and proved it untrue.

From early youth Ned Lawrence not only took keen delight in adventures of this sort, but he also loved to read about the heroes of ancient times, and before leaving Oxford he had made himself familiar with the story of all the wars from ancient Bible times right down to the present day. To him such men as Sennacherib, Nebuchadnezzar, Alexander, Xenophon, Napoleon, Wellington, Washington, and Stonewall Jackson were live persons instead of mere figures in the dead pages of history. He enjoyed reading about them so much that he somehow never forgot the details of their campaigns. But little did he dream that within a few years he would have the opportunity of trying out their schemes of strategy as the leader of an army of his own.

His boyhood companions, and even the members of his own family, hardly knew what to make of him, because he had such irregular and unusual habits. To him these books of history, books that he had been obliged to dig out of libraries because they were not used in school, were more thrilling than fiction. He often read far into the night, and this gave him such a wide store of information and developed his mind so much that his school work was easy.

It takes four years for most boys to finish the regular university work at Oxford, and many have trouble doing it in that. But Ned Lawrence made it in three. Then he decided to go still farther and get a master of arts degree.

To do this one must write a long essay based on original work and not merely on something copied from the books of other writers. Ned Lawrence thought it would be a splendid idea to set out from England and trace the steps of the old Crusader knights right across Europe to the very walls of Jerusalem, which these knights of old had fought to liberate from the swarthy Saracens.

His parents were not so enthusiastic about the idea. They feared that if their Ned went off to the Orient he might get the wanderlust and stay away indefinitely. At length they reluctantly agreed to let him have a little money and arranged for him to go with one of the regular tourist parties that visit Palestine and Syria every year. To be exact, they gave him two hundred pounds sterling, about a thousand dollars, for the trip.

The tourist party, made up mostly of nice old ladies and bespectacled gentlemen carrying spy-glasses, kodaks, and medicine-kits, sailed from England for the Mediterranean. The first stop was made at Beirut, a modern city in what was once the land of the Phenicians. Ned Lawrence could hardly wait for the ship to dock. As soon as he got ashore he slipped away from the tourist party,

went to the native bazaar, and there exchanged his European clothes for the loose flowing robes of the Arabs. He gave away his shoes and went barefoot, and from then on little was heard of him, except for the short notes that he wrote home. On foot he set out across the country, living with the Syrian villagers and the wandering tribes of shepherds.

In this way he quickly picked up a knowledge of the Arabic language. It was either this or starvation!

From time to time he came upon an ancient ruined city, and there amid the crumbling walls of castles built by Crusader knights he transported himself back in imagination to those adventurous days when the soldiers of the cross waged war with the dashing cavalry of Saladin the Saracen.

When he returned home a year later he still had half his money left. It had cost him but little to live with the poor country peasants and wandering Arabs, and that was what he preferred.

All this happened when he was about twenty years old. His master's thesis was so good, and in it he showed such an intimate knowledge of the Near East, that famous scholars heard about him. Now the British Museum, which sends out many expeditions to study the remains of ancient civilizations, sent for him. They gave him one of their most difficult missions. It was to go alone to a large tropical island near the equator and bring back a report



"LAWRENCE GOT OVER TO THE GERMAN CAMP IN TIME TO SAVE THEM"

from a remote jungle region regarding some secret digging that the archaeologists of another country were carrying on. We shall leave both the name of the island and the nationality of the scientists a mystery, because if the full story were to come out even at this late date it might result in trouble for several governments. When Lawrence arrived at the island he found the tribes engaged in a bitter war. The people on the coast were fighting the more primitive inhabitants of the interior, and Lawrence could not resist the temptation to take part. He joined the jungle tribe and by a bit of strategy helped them win their war.

The natives on the coast had gathered together a large fleet of sailing-boats and long war-canoes. They were about to start up the river to invade the heart of their opponent's country. Lawrence got his new friends to lash a number of rafts together and then piled them high with dead-wood and brush. Setting fire to these one night, he and the tribesmen pushed



them out into midstream, and in full blaze they floated down to the mouth of the river, where they bumped into the other fleet, with the result that it also went up in flames.

We can see from this incident that although Ned Lawrence was a scholarly young man who loved to study history, he also was a person of action and full of the spirit of adventure that later on was to enable him to lead a desert army in a great campaign against the Turks.

After he had done this, and also penetrated into the island far enough to find out just what the rival archaeologists were doing, he returned to London and made his report.

A little later he became a member of an expedition that had been sent out from Oxford to uncover the ruins of a buried city in the center of northern Arabia. This region, between the Syrian city of Damascus and the ancient country of Babylonia, is called Mesopotamia.

Thousands of years before the birth of Christ the two great centers of civilization were along the valley of the Nile in Egypt, and a thousand miles farther east in the valleys of the Tigris and Euphrates. The first was the civilization of the Pharaohs, the people who piled up the pyramids and built the marvelous Temple of Karnak. The second was the civilization of ancient Babylon and Nineveh, cities almost as magnificent and

mighty as any in our modern world.

But between Egypt and ancient Assyria lived another progressive and highly educated race of whom we still know comparatively little. The scientists of Oxford and London wanted to uncover this civilization of the Hittites. So they sent out an expedition of which Ned Lawrence was a member. Here he worked for several years, helping to explore the ruins of the buried city of Carchemish.

He was a little fellow, weighing hardly more than one hundred pounds, but his muscles were like steel, and his former life among the village and tent dwellers had given him an unusual knowledge of how to get along with these people. Now this expedition had to depend for its excavators or diggers on the primitive and warlike natives. They were unable to get enough of one nationality, and so their digging gangs were made up of Arab villagers, giant Kurds from the mountains of Kurdistan, half-Mongolian called Turkomans, whose faces look as though made of butter, mongrel descendants of the ancient Chaldeans who had once ruled over all this region, a few Armenians, and others. But these people are not accustomed to working regular hours. Most of them are as free as the air they breathe. So it is a ticklish business to try to keep them interested in such dull work as shoveling dirt.

At that time Mesopotamia was still a part of the Turkish Empire, but most of these people knew little about law and order as we think of them. They carried their own weapons, and robbery and murder were common.

"FROM A DISTANCE, THEY LOOKED EXACTLY LIKE CANNON."

Moreover, each race distrusted and cordially hated the others. So it was almost as hard to keep them from digging into each other with their knives as it was to keep them interested in digging for ancient ruins. Ned Lawrence's work was the supervision of these gangs of half-wild people. He understood them, and they liked him. So he met with unusual success.

All this time, without his knowing it, the unseen hand of Fate was preparing him for the rôle that he was soon to play in the World War. Without all this experience, he never would have been able to unite the Arab desert tribes in their war against the Turks.

While out here in North Arabia, Ned Lawrence had many adventures that give us an idea of the sort of training he received for the more important adventures that were to come. In those days the Germans were doing everything in their power to build up a great colonial empire. They were developing cocoanut plantations on scores of islands in the South Seas. They had conquered many warlike tribes in remote parts of East and Southwest Africa. But what was far more alarming to the British, they had got the consent of the Turks to build an all-German railroad right across Europe from Berlin through the Balkan states to Constantinople and from there across Turkey and on down over the North Arabian Desert to the head of the Persian Gulf. This line was known as the Berlin to Bagdad Railway.

The Germans hoped that it would enable them to get a large share of the commerce from southern Asia and other parts of the Orient which was in the hands of the British. The Germans had already extended their line to within about four hundred miles of Bagdad, and their dream was about

to come true. In the meantime the British Government seemed to be asleep. Lawrence, who saw how dangerous this railway would become to the British Empire in Asia, was angry with his countrymen for allowing it to be built. He tried to arouse the British to the danger, but he was so young and so small and seemingly so insignificant that no one took him seriously. From then on he decided simply to amuse himself by annoying the German engineers. So he secretly loaded some long sections of old pipe on the backs of mules and took them up to the top of the mountains overlooking the region where the German engineers were at work on the Berlin to Bagdad Railway. Then he mounted these pieces of pipe on mounds of rock, so that from a distance they looked exactly like cannon. The Germans were completely taken in and sent messengers, both to the Turkish Government and to the kaiser in Berlin, stating that the British were fortifying the hills. Lawrence enjoyed the joke very much.

Of course the Germans were obliged to use local people in constructing the railway embankments and bridges, and they had a great deal of trouble with the workmen. The engineers, instead of trying to learn the names of the Arabs, Kurds, and other natives, simply painted numbers on the backs of their coats. As a result there was no spirit of comradeship or good feeling between the workmen and their superiors such as there was over in the camp where Lawrence and his fellow British archaeologists were using the same races in their digging gangs. On several occasions the natives turned on the Germans, and one day news of a threatened riot reached Lawrence, who got over to the German camp just in time to save the Germans from all being killed. As he was already known far and wide in that region, when he got to the scene of the fighting the tribesmen quieted down out of respect for him. This time Lawrence was accompanied by another Englishman, C. Leonard Wooley. News of what they had done to save the Germans reached Constantinople, and both Lawrence and Wooley were decorated with the Turkish Order of the Medjidieh by the sultan, for their bravery and gallantry.

But even after saving their neighbors' lives, the feeling between the Germans and the Englishmen at the two camps was not friendly. Lawrence had a boy named Ahmed working for him. One day Ahmed happened to pass one of the places where the work was under way on the Berlin to Bagdad Railway. He had worked

for the Germans, and when he quit he felt that he still had more money coming to him. This time he saw the foreman under whom he had worked and asked for his money. The head of the German camp came up at this moment, lost his temper, and had Ahmed held and soundly whipped. When Ahmed got away he went to Lawrence in tears and told his story. Lawrence walked over to the German camp, called out the engineer, who was a huge fellow, and told him calmly that if he did not come straight down to the native village and apologize publicly for flogging Ahmed, he would take the engineer there and thrash him before all the villagers. The German laughed. Then he apparently saw something in Lawrence's eye that made him think a second time. Although he was twice as big as the youthful archaeologist, he knew Lawrence's reputation. He knew him as the sort of chap who always did exactly what he said. The result was that the engineer made the apology. Of course this was thoroughly enjoyed by all the native men, women, and children who had gathered around. It was a most unusual thing to see a European humiliate himself. So it is not surprising that respect for Lawrence grew rapidly among all the desert peoples in that part of the Near East.

Another time Lawrence prevented a fight between some giant Kurds and German soldiers. The Kurds are a particularly unruly and quick-tempered race. They not only love to quarrel but many of them are blood-thirsty brigands. When Lawrence tried to calm them they at first paid little attention to him. One huge Kurd, a man who looked strong enough to pick Lawrence up and break him in two, pulled back his arm to hurl a rock at a German. Quick as a flash Lawrence was on him. He caught the Kurd by the wrist, jerked his arm behind his back, and nearly broke it off. The Kurd howled, and his companions were so surprised to see the ease with which a little whipper-snapper handled their biggest man that they soon cooled down and went off.

It was not only Lawrence's surprising strength that appealed to the natives; it was also his perfect coolness. He always seemed to be the complete master of every situation. Some people are born with this gift, but unfortunately not many of us.

Whenever possible he used to put on native costume and go off on a long trip across the desert, passing from one village or Arab encampment to another, living with the people, gaining a still better knowledge of their

complicated language and their ways. While on such a trip he was taken ill with a fever, though he continued his journey. He was alone in the desert one evening when he met a wandering Turkoman. Lawrence was on his way from the town of Marash to a village called Birjik. He stopped for a moment to talk with the stranger and asked him to tell him which of two paths he should follow. Then after Lawrence started on, the Turkoman jumped on his back, crushed him to the ground and began to beat him up. Lawrence was nearing the end of a thousand-mile trip across the desert on foot. The journey had taken much of his strength, and the fever had weakened him still more. So he was no match for the Mongol. The robber sat on Lawrence's stomach and then pulled a revolver from Lawrence's belt. He put it against the side of his victim's head and tried to pull the trigger. Luckily for Lawrence, the Colt had a safety-catch, which was on, and the Turkoman did not know how to work it. Tossing the revolver away, he seized a rock and hammered Lawrence's head until unconsciousness came. Then he stripped him of everything he had. An hour or so later, when Lawrence came to, he struggled on to the village. The inhabitants went with him on horses, rounded up the thief, got Lawrence's possessions back again, and beat the Turkoman within an inch of his life.

On another of these desert journeys Lawrence was captured by a band of Kurd robbers. They took him to their secret refuge, high up on a mountain-top. They put him in a hut and left two of their men to guard him, while the rest of the band went off on another expedition. One afternoon the Kurd sentries were separated, one remaining inside with him and the other sitting outside in the sun. It was a very hot day. The Kurds had had their lunch, and the man on the outside had fallen asleep. The other sentry happened to turn his back, and as he did so Lawrence jumped on his back and overpowered him. He did this without making enough noise to wake the second man up. Then he went out and disposed of the sleeper. The only approach to this rocky mountain-top was up a narrow, winding, precipitous path. Lawrence now had two rifles and plenty of ammunition. Hiding himself at a strategic point, he picked off the rest of the band as they came up that evening.

This tale was told to me by a young British officer in the East, who had seen a great deal of Lawrence in the

(Continued on page 746)



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THE "SPIRIT OF ST. LOUIS" OVER PARIS
FROM THE LITHOGRAPH BY HENRY ZIEGLER

LEADERS OF TO-MORROW

By DAVID LAWRENCE

Editor, The United States Daily

SOMEWHERE between the ages of ten and twenty is the formative period in the development of character. This is only another way of saying that the boys and girls of to-day will reveal twenty years hence exactly what they have acquired. Some will be leaders. Others will be followers. Some will be more successful than others. Some will have a greater measure of human comforts and some, indeed, will have achieved a recognition of the fact that somehow or other they have risen above mediocrity.

There is nothing so elusive as the word "fame." It is natural for every individual to aspire to reach the pinnacle of success in his or her chosen career. But it would be manifestly inaccurate to say that every individual who has achieved fame is necessarily successful or that any successful individual is less worthy of esteem because his success is inconspicuous.

Granting that the spirit of youth is infinite, and that every boy and girl hopes to be "different" when the real battles of life are begun, it behooves us to inquire just what are those characteristics which make it possible for ambitions to be fulfilled.

It has been the writer's good fortune to know a number of men and women whose names are commonly linked with the words "fame" and "success." It is unusual to find any of them conscious of fame or success. What they have attained of public applause seems only incidentally to have affected their attitude toward life. And this is not always due to a highly developed sense of modesty. It is simply that the objectives upon which they set their hearts are so much more important than the pleasure of personal praise which comes to them that they never lose sight of the great number of unaccomplished tasks that lie ahead. For there is no limit to the desire of the human brain to extend its activities. Only when physical decrepitude begins to diminish mental energy is it natural to turn away from unfinished labors.

And so it may be said that the training of the mind is not for a particular year or series of years, but for the whole span of maturity. There are, of course, only a few years in which one's whole time can be devoted to self-education. Yet the process is never-ending.

for the most successful men and women of to-day are those who never stop studying. There is hardly a business or profession in which the necessity for study is abated. In fact, the trained mind continues to study in later years and even unto the end.

But the common complaint of people in mature years, who have not learned the art of concentration, is that they failed to train themselves in the years between ten and twenty.

If I have indicated to my readers that it is essential for them to take advantage of their educational opportunities between ten and twenty, if they are to outstrip in later years their companions of to-day who are destined for mediocrity, I would point out also that, entirely apart from the rigorous demands of the business and professional world, there is an even greater need for training those who seek to enter the public service.

It is unfortunately true that the ridicule, if not the contempt, which is visited nowadays on persons in public office has the effect of discouraging young men and women from looking forward to such a career. But that is only a temporary mood on the part of the critics who have overreached themselves. The responsibilities of the Government at Washington to our people, as well as to the other peoples of the world, are growing each year instead of diminishing. Persons who are just popular and who are unable to accompany their popularity with trained mind are merely transients in public life—they do not cause a ripple. Simply to be elected to office is not to be considered an achievement, unless it is followed by a term of usefulness. The public service has in it many misfits, just as have business and the professions. It is a process of elimination. It weeds out the inefficient and retains those who have an aptitude for public service.

If you will read the biographies of some of the men who are in the public eye to-day, you will find that they did not waste the period between ten and twenty. Studies which they pursued then, debates in which they then engaged, books which they perused, both in school and after school hours, all played their part in what I have called the formative period of their lives. It is quite natural for

the average boy or girl to say that there is time enough in later life to decide upon what career one should embark. It has long been my view that preparation for a career could not begin too soon; or, at least, that the decision as to what one would like to do in later life should not be postponed until the middle of a college course. It is true that one's mind frequently changes and a career or profession picked out in early life is discarded in favor of another which later appears more attractive. Even this process is desirable, because it is better to sift and choose early than to waste years in a work which can hardly be suited to one's particular tastes or ambitions.

What is meant by preparation? If a young man is thinking of becoming a lawyer, it is not essential that he shall begin to inquire into the fundamentals of law. It is essential, however, that he should be told to seek self-improvement, that he should do his thinking in an orderly manner. Slipshod characteristics of youth are bound to recur in later life and early handicaps are difficult to overcome. I used to think that Latin and Greek were non-essential studies, because they were dead languages, but I recognize now that, because most of the students of my day disliked Latin and Greek, was a very good reason why at least one subject in the curriculum should be retained for the purpose of mental discipline and self-control. Life consists of many tasks which have to be done whether we like them or not. It is a measure of one's power of concentration and self-control when a disagreeable work is finished successfully. Sometimes, tasks which appear disagreeable become agreeable when superficial impressions are erased and the heart of the problem is really reached. There is a satisfaction in the mastery of such problems.

All this is only another way of saying that reading, which appears to you to be dull and dry, may contain nuggets of gold. Knowledge after all is wealth itself. The most powerful figures in American history have been men who did not hesitate to spend long hours studying the problems of administration, both in the Federal and the State Governments.

According to my view, public life offers an extraordinary opportunity to the well-trained mind. It has been my lot to watch for many years the coming and going of several administrations. As a writer on national affairs I have been compelled to scrutinize carefully the personalities of public life, to view at close range their methods of work. It has seemed to me that the thorough-going indi-

vidual has easily shown himself superior, both in the committee work and the speeches of Members of Congress, as contrasted with the superficial and careless-minded individuals who have come upon the stage and passed on almost unnoticed.

This, of course, is an age of specialization, and in government you will find that there is a tendency to specialize. Men make themselves experts in certain phases of government and attempt to lead their colleagues in the development of important policies relating to their specialties. It is impossible, of course, for a senator or a member of the House of Representatives to master all the many phases of legislative activity which are suggested for consideration in our complex life of to-day; but it is not impossible by study and conscientious effort to contribute to the sum total of knowledge on particular questions, by making of them a thorough and comprehensive study over a period of time.

The opportunities for service are constantly increasing. In an age in which superficiality and the line of least resistance may seem to be characteristic, the greatest rewards are, nevertheless, being achieved by painstaking minds. There is no room for the spasmodic, nor is there any hope for the careless. Read the debates in the Congress of the United States as they appear in the "Congressional Record" and you will find that, while a good many statements are disputed because they have not been carefully prepared, the major part of the arguments contained therein are based upon a great deal of reading. In my own experience as editor of "The United States Daily," a newspaper which is devoted entirely to a non-partisan presentation of the news of all branches of the Federal Government, I have discovered that some of the finest examples of constructive achievement come from relatively obscure persons, whose names do not often get into print in the general newspapers, but who, nevertheless, are doing a research work which enables others to profit by those researches. The Government has become, in other words, a factor of usefulness in an era of intense business development. It is not unusual to see men and women going from the Government into private life, having received a training in government work which enables them to develop their talents even more effectively. For some people service in the Government is a convenient stepping-stone. For others it is a life work. I commend it to my readers as something worth studying, even at this early date in your lives, for the students of to-day are the leaders of to-morrow!

WHERE PLUCK WINS FOR AVIATION

By A. M. JACOBS

IT is eight o'clock of a sunny morning. In a room above the hangars of one of Uncle Sam's flying-fields, the test-pilots of the Army Air Corps, most of them young lieutenants, are holding their regular morning conference. Informally they have gathered in the office of their chief, who is one of them, those too late for chairs lounging against the walls. A police-dog wanders about quite at home. Now and then he lifts his eyes to his master as if to say, "Am I to go with you to-day back in the baggage compartment when you fly?" And being ignored, he takes to brooding.

The chief is hastily checking up on the work of the day before. Have the brakes been changed on P-457? Has the adjustable propeller been installed on 452? Were bombs mounted on the bomb racks of 428? How did it fly? Here is a report that flames came from the intake scoop of the 0-7 twice in the air yesterday. Who of the test pilots have flown the 0-7 and what did they find? Several have flown it, and an argument follows. The majority claim that there is no danger from fire in the 0-7. Those who have not flown it are ordered to do so and bring in their comments. Plans are discussed for the work of the day. Each of the pilots is then called upon for anything more he may have to say.

One has flown to a new field the day before. It is in mountainous country and, though formerly an emergency field, has recently been made a main refueling stop. It is deep in mud and he had to land cross-wind uphill. He cannot understand why it has been selected. A bomber was recently wrecked there trying to take off, but fortunately, there were no fatalities. He describes it to the others, its location and best ap-



LIEUTENANT "HARRY" JOHNSON, CHIEF OF THE TEST-PILOTS, WEARING A STOPWATCH AND A PAD STRAPPED TO HIS LEG, READY FOR SPEED-COURSE TEST

proach, but advises them not to stop there unless they must.

Another reports on a controversy between the supply officers and the fliers over the grade of gasoline they have been receiving.

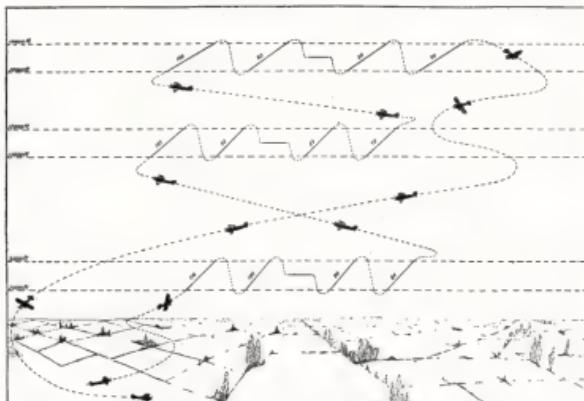
Another has flown a brand-new plane ordered by the Government

from an eastern manufacturer's plant the day before. Ah, that is a main issue! All will have to fly it. All the test pilots fly every plane brought to the "line" before the hangar doors. Big planes, little planes; swift, light, sensitive pursuit planes; heavy, slow, unwieldy bombers. Only a man with skill and experience in flying all types of planes can be admitted to the ranks of the test-pilots. Even then it takes about six months for them to become efficient in the various types of testing. A pilot new to the work may think he is coming on magnificently, but quite frequently, unknown to him, one of the others is repeating his tests to be sure of getting the correct results and also to learn just how accurate and dependable as a test-pilot he shows promise of becoming. They are a small company, numbering, in peace-time, less than a carefully chosen dozen, and if there is deep in the breast of each a certain pride in being of that company, who will begrudge it them?

Day after day they take into the air new planes which have never been flown before and old planes which have new and untried installations sure to affect the flying qualities to an uncertain degree. Purposely, they throw the plane into all the dangerous maneuvers into which it might accidentally slip in flight, in order that they may study its behavior under each condition and may know

whether it is going to respond to the controls for the pilot out in the service. Usually, they can place a fault and it is corrected. If the fault cannot be corrected, the plane never reaches the service; and in learning that it is not fit, the pilot must now and then save his life by parachute—or lose it.

For it has happened in the history of the field that one of those fliers gathered there for the morning



THE FLIGHT PATH OF AN AIRPLANE IN MAKING A "SAW-TOOTH" CLIMB
The numerals indicated for the climbs are the miles per hour the pilot must maintain.
The "saw-tooth" gets its name from the character of the flight path

conference has not reported at the end of the day. His dog is there, wandering restlessly. His car is parked outside the flying section hangars. His cap which he discarded for helmet hangs on the rack. His comrades are out flying, keeping at it, to down the sudden, overwhelming sense of danger, the sick doubt as to whether their splendid game is, after all, worth the candle, to down the sorrow for a lost friend.

Such a thing happened in August of last year. One of the fliers had thrown an observation plane into a spin and had reported in conference next morning that the spin had developed into a strange, flat variety, different from anything he had ever experienced and extremely difficult to bring the plane out of. Another pilot put it through a similar maneuver and brought in a similar report. This was rather an important discovery, for the plane was one which designers and engineers had considered a distinct advance over previous models of its kind and had rather hoped to adopt as a standard model for the service.

Lieutenant E. H. Barksdale, better known as "Hoy," his middle name, or

his charm and kindness and deeply respected for his remarkable flying ability, was chief of the test-pilots at the time. He had gone in for flying in 1917 and been attached to the Royal Air Force of England. Once in battle he had been wounded in the right shoulder and had brought in his bullet-riddled plane with his left hand. Once he had been shot down in German territory, and before his captors could reach him, he had fired his signal-light pistol into the gasoline tank of his plane so that it was soon in flames, giving the impression that he had been burned in it, then had hidden in a shell-hole, hoping that he could escape or that the Americans would take the territory, which they fortunately did about six hours later. He had received official credit for bringing down four

into the air, once when a wing gave way. One of these jumps had been among the lowest on record and he had suffered a sprained ankle on landing. He had appeared at the field, however, that same afternoon



THE INSTRUMENTS UNDER TEST IN THE PILOT'S COCKPIT OF A MARTIN BOMBER

wanting to fly and would have taken the air had not the flight surgeon hustled him into an automobile and sent him home.

None of the test-pilots is ever called upon to do anything that the chief would not do. Therefore, upon the report of this fault by two of the men, Lieutenant Barksdale decided that he would be the third to investigate and see if he could fathom what in the construction of the plane could cause this mysterious spin. Taking it up to 6000 feet, he pulled the nose up into a stall, kicked on right rudder, and "let 'er go." The strange spin developed and the plane came to 2000 feet before he succeeded in leveling it out. He started up again to try it in a left spin. But this time it was uncontrollable and he knew that he must jump. The spin, however, had become a thing of maddening speed, and in trying to leave the plane, he was thrown violently into the wing brace-wires which sheared the cords of his parachute, letting him fall free to the ground.

"Not Lieutenant Barksdale!" came in grief-stricken tones as the news traveled from end to end of the field like wild-fire, and for days there were no smiling faces to be met. His presence still lingers in the hearts of all, gallant and lovable, worthy of a place among all those finest ones whose pictures we like to place about us and whose names form an inner treasure in our lives to make them braver and richer.

But let us return to the test-pilots' conference and to the new plane which has been "ferried" to the field the day before.



DIVING WITH THE ENGINE WIDE OPEN

"Bo-Jack"—he and a crony in France had been dubbed Bo-Jack and Bo-Peep—or "High Pockets," because of his long-legged slimness, a sunnily-tempered Southerner, much loved for

German planes. Twice in his daily routine test-work at the field he had saved his life by parachute, once when the tail of his plane snapped off in a test maneuver, catapulting him out

"It's a crude-looking job," one of the pilots remarks disparagingly.

"But—oh boy—she flies!" eagerly defends the pilot who has flown it in. Such enthusiasm over a new plane is rare and the pilots look skeptical.

"What we going to do with it?" another asks the chief.

"Full inspection, full performance testing," he snaps matter-of-factly.

That means that various engineers will inspect thoroughly the plane and engine, the flying and engine controls, the fuel, oil, cooling, and electrical systems, the instruments, armament, and whatever other equipment it may have. The test-pilots will also inspect and make trial flights in it. The performance testing is assigned to the eager pilot who has found that "Oh boy—she flies!" It is a new plane, it must be remembered—nothing has been proved concerning it. The purpose of the performance testing will be to learn its high and low speeds, its rate of climb, the greatest height at which it can sustain level flight, its service "ceiling,"—the height at which it can climb no faster than one hundred feet per minute,—its stability, maneuverability, and general air-worthiness. These things must be known as matters of flying information of every plane, of course; but other than that, they must be learned in order that Uncle Sam may know whether this plane lives up to the specifications set down in his contract with the manufacturer. If it falls short, it may be rejected.

First, it will be given the "speed-course tests." Did you ever stop to think that there is no speedometer to show the miles per hour over the ground an airplane travels such as we have for automobiles and other vehicles, the mechanism of which is based upon counting the revolutions of the wheels as they move along the ground? The only way of learning accurately the speed of an airplane is to fly it over a ground course whose distance is known, and take the time required for the flight. For this purpose a two-mile-straightaway course is permanently laid out on the test field. Very little travel is done over speed courses, however, and since it is nearly always necessary to know at least the approximate speed at which the plane is flying, the computing of that speed is worked out in this way. Set out on the forward wing strut is a little tube through which the air rushes as the plane flies. This tube is connected with a sensitive instrument which, through the pressure of that air passing through the tube, moves a pointer on a dial set on the pilot's instrument board. The face of this dial is not unlike that of

your automobile speedometer in its markings, excepting that the numerals representing speed in miles per hour are much higher in value, usually from one hundred miles per hour. The faster the plane travels, the greater the rush be through the tube, the greater the pressure on the pointer,



FLYING TROPHIES WHICH NO ONE WANTS TO WIN: THE OIL-CAN TROPHY, THE BONE-HEAD TROPHY, THE ALIBI TROPHY, AND THE DUMB-BELL TROPHY

and the greater the number of miles per hour that pointer will indicate. This instrument is called an air-speed indicator. It must be remembered, however, that these air miles per hour are not necessarily ground miles per hour, and the ground mile is the only real mile in existence. But if on the speed course these air miles per hour are compared to ground miles per hour actually obtained, corrections for the airspeed indicator readings can be worked out that will enable the pilot to know at any height and over any country the approxi-

mate number of ground miles per hour at which his plane is traveling. This is called correcting, or "calibrating," the airspeed indicator, and it is one of the reasons for which the speed-course tests are run. The others are to learn the plane's high and low speeds and its flying qualities at various other speeds.

These tests require more care and expert piloting than any other type flown. Although not more than forty minutes are usually consumed in making them, each minute is one of strain, and the pilot experiences a feeling of relief when he can climb his plane to the safer flying altitudes and know that another speed-course test has been successfully completed. For in order that he may easily see the markers and fly directly in line with the long black marker that goes down the center of the course, holding his plane at an even level, the speed course is flown low, just off the ground, at an altitude of ten or twenty feet. Because of the low altitude, there is no chance of escape by parachute should anything go wrong. The pilot could only land, hurtling at the ground, and probably crash.

A calm day must be chosen, one in which the air is quiet near the earth. Some wind there will invariably be, but there must be no high wind to retard the speed or bumps to jar the plane if accurate test results are to be obtained. Air conditions are usually best in early morning or late afternoon.

Besides the usual flying paraphernalia, the pilot wears a pad and pencil strapped to his leg for setting down his observations, and a stop-watch suspended about his neck. During the actual tests, the stop-watch will be grasped firmly either in the hand on the control-stick or the hand on the engine throttle, the cord wrapped between the fingers so that it cannot slip.

The first runs will be for the purpose of learning the plane's top speed. Braced steadily in his seat behind the wind-shield, tense against any slightest movement, engine throttle wide open, the pilot strikes his level about a mile before entering the course. As he approaches the first marker, he compresses with his thumb the stem of the stop-watch almost, but not quite, to the clicking point, then as the forward edge of the left wing reaches the marker, he clicks the stem in, starting the hands around. Keeping the black line of the course just to his left, holding level the powerful plane moving at top speed, he makes mental note of the air speed indicated on the instrument before him and of

the readings of certain other instruments, then as he approaches the marker indicating the end of the course, he again compresses the stop-watch stem, preparatory to stopping the hands, and clicks it in just as the marker appears at the forward edge of the left wing as before. If he has been flying a pursuit plane with the wind in his favor, the time taken to cover those two miles has perhaps been forty-three seconds—a mere flash. He then pulls the plane up in a gentle climb to break the speed, and records on the pad the air-speed indicator and other instrument readings he has taken in flight and the time as recorded by the stopwatch. The course is then flown in the opposite direction, against the wind in exactly the same manner, completing one round-trip flight. Two successive round-trip flights, each made with the same extreme care, complete that particular part of the test, the average speed of the six runs being taken as the plane's high speed.

A series of round-trip runs follows, each timed just ten miles slower than the preceding one, until it is apparent that the plane is moving over the course as slowly as possible without losing flying speed and stalling. This last flight will show the plane's low speed. Always stop-watch, air speed, and other data are being taken with extreme care. For this series, however, an instrument which records on a chart the readings of the air-speed indicator, called an air-speed recorder, is also used. Automatic recording instruments are being used increasingly in air testing as fast as they can be developed, both to simplify the flier's duties and to gain accuracy without the chance of personal error. Having completed the low-speed flight, the pilot will make a final climb to safer flying altitudes, set down his information, then glide down and land near the hangars, where the information he has collected will be placed in the hands of a specialized engineer, who will extract from it the data for the next performance test, known as the "saw-tooth climb."

The purpose of the saw-tooth is to learn the best rate of climb of the airplane at different altitudes, so that later a pilot will be able to climb to its ceiling in the shortest possible time. Before starting on the test, several recording instruments are installed and the pilot is given a data card on which the altitudes and

speeds for each series of climbs are specified. Usually three different altitudes are called for, with four climbs, at varying rates of speed, at each altitude. The course the plane follows in this test gives it its interesting name. The first saw-tooth

ninety miles per hour; for the fourth, eighty miles per hour. Somewhere between the high and low figures, the best rate of climb will lie, and when the flier has made the climbs and level flight and set down the necessary data, such as the number of revolutions of the engine per minute in the climb, the oil pressure, water temperature, air temperature, etc., he climbs as he chooses to 11,000 feet, where he performs the next saw-tooth according to his data card instructions.

The air will be noticeably colder at this altitude and the speeds ordered for the different teeth of the saw will each be about five miles per hour less than those at the lower altitude, for it must be remembered that in the less dense air of the higher altitudes, the engine cannot develop as much power, and as high climbing speed cannot be obtained.

As he climbs to the 18,000-foot level, the temperature will be dropping considerably below zero. Because of the intense cold, this is the least pleasant of the saw-teeth. For these climbs the speeds have been again diminished by five miles per hour because of the decreased air density and its effect upon the engine, and the pilot has resorted to oxygen. This saw-tooth is flown just below the theoretical service ceiling of the plane, and when it is completed, the pilot brings the plane down, often with ice glistening on the wings and brace wires, and the completed data card and recording instruments are again turned over to the engineer, who from their information now works out a climb for the airplane at its best rate of speed for each thousand feet straight to its ceiling.

This climb, called the "check climb," forms the next test. Again the pilot climbs at a rate of speed specified on a data card, setting down upon it at each one or two thousand feet the number of the revolutions of the engine per minute and the temperature as shown on his instruments. At high altitudes, when the climb has slowed down until he sees he is n't getting anywhere, he will make a level high-speed flight, and again write his notations on the data card at the end of it. The altitude of this flight will be shown on the recording instrument. Again he has encountered severe cold, and oxygen has been resorted to, to keep his wits from becoming sleepy. It is not easy at this altitude to know that one is flying level, and an instrument called a statoscope aids him. This is really



CHARLES LINDBERGH, THE PLUCKIEST OF THEM ALL

From a photograph made while he was a cadet in the United States Army Air Service, and originally reproduced in St. NICHOLAS for August, 1925. Further comment on his thrilling flight will be found on page 722. Next month, St. NICHOLAS will print an article by A. M. Jacobs, who is now in France, on "How LINDBERGH DID IT"

will perhaps be flown between 2000 and 3000 feet; the second, between 11,000 and 12,000 feet; and the third, between 18,000 and 19,000 feet. Midway between the highest and lowest points of each saw-tooth, a level flight must be run to get the high speed of the plane for that altitude.

The climb from the ground will be made in any fashion the pilot chooses until the 2000-foot level is reached; then the first climb will be made at the speed ordered on the data card, the different speeds necessitating different angles of flight. The problem is to find the combination of climbing angle and speed that will make the thousand-foot climb in the least time. The speed designated for the first tooth of the saw may be 110 miles per hour; for the second tooth, one hundred miles per hour; for the third,

a very sensitive altimeter, showing a rise or drop of the plane as little as five feet. A series of five or six level high-speed flights is then made at lower altitudes called for on the data card, which completes the check climb test. This test is always repeated later for accuracy.

With the completion of this test, the ceiling of the plane has been learned, the time required to climb to this ceiling, its best rate of climb at various altitudes, its high and low flying speeds at various altitudes and at the ground. Many other important things have also been gleaned concerning its general flying qualities. If its performance does not live up to the contract, the matter is taken up right here.

This does not end its testing, however. There are still many other important things to be learned. There is the "cooling test," in which the plane is put through climbs, dives, and level flights, with radiator shutters open and shut to determine whether the radiator has sufficient cooling surface for the best performance of the engine; the oscillation test, in which the pilot starts the plane in a gentle dive, takes his hands from the controls, and notes the results. If the plane is stable, it will continue to dive until a certain speed is attained, when it will gradually go into a gentle climb until flying speed is lost, nose over into another gentle dive, continuing this gentle diving and climbing, a little less each time, until it returns to level flight position. The time from the first dive until the plane rights itself is called its "period of oscillation" and is timed by stopwatch. The less stable the plane, the longer it takes it to right itself. If the plane is unstable, the successive dives and climbs will become steeper instead of gentler, the plane finally falling either in a dive or a stall. This test is always made with plenty of altitude.

Another test requiring at least a 5000-foot altitude is the accelerations' test, the purpose of which is to learn the stresses which the wings and other surfaces of the airplane must bear when being put through maneuvers which the pilot would have to use in combat. In this test, the pilot performs a series of vertical banks with sharp turns, tight, fast loops followed by wide, slow loops, spins with and without engine power, rolls, and finally dives at various speeds, with and without engine power, pulled out of as sharply as possible. A recording instrument, called an accelerometer, measures the various stresses on the plane in these maneuvers.

The most notable accelerations tests ever performed, perhaps, were those of Lieutenant "Jimmie" Doolittle at McCook Field in March, 1924. Lieutenant Doolittle is a rare combination of student and flier.

THE FIRST "OUTSIDE" LOOP

LIEUTENANT JAMES A. DOOLITTLE, one of Uncle Sam's test-pilots at McCook Field, on May 26, performed an "outside loop," the goal of aviators since it was first unsuccessfully tried in 1912. The following is from the Associated Press report:

"Flying over Dayton, at an altitude of 8,000 feet, Lieutenant Doolittle turned the nose of his plane downward and described a huge circle, 2,000 feet in diameter, and returned to level out at his original height. The flier was on the 'outside' of the circle throughout and was held in his seat only by straps. At the lowest point of the circle he was directly under the plane, flying at a speed of 280 miles an hour. As he climbed back the speed of the machine was retarded to approximately 150 miles an hour, the speed he was making when he went into the loop.

"When Lieutenant Doolittle landed his eyes were bloodshot and he gave evidence otherwise of the severe strain of the feat.

"Doolittle used a P-B-1 Curtiss pursuit plane, with a regulation Curtiss D-12 engine of 420 horse-power. He flew with a specially constructed safety-belt strapped about him, the usual safety-belt being deemed insufficient to afford protection against the extreme pull at the bottom of the loop."

Not only is he one of the most expert pilots in the world, but he holds the degree of doctor of philosophy from the Massachusetts Institute of Technology for his work in the science of aerodynamics. In the hangars, some one, several years ago, made the boast that Lieutenant Doolittle and Lieutenant Alexander Pearson, who had flown a great deal together, could take off, fly, and land without breaking a twenty-five-foot cord fastened to the tails of their two planes. Immediately wagers were made pro and con until quite a stake had been raised. The planes were wheeled out, warmed

up, the cord attached, and the two lieutenants merrily climbed in. They took off and flew wing-to-wing for fifteen minutes, the hangars watching. At the landing all rushed out—to find the cord intact. A splendid flying team, they were, fascinating to watch at combat practice, their planes diving at each other, playing tag, rolling or looping as best suited the tight place in which either might find himself. In 1922, Lieutenant Doolittle made a transcontinental one-stop flight which was a record at that time. In 1925, he won the Schneider Cup Race, an international seaplane event, and broke the world's speed record for seaplanes, for which he has been "Admiral" to the army flying-fields ever since. Last autumn he obtained leave of absence from his work as chief of the army test-pilots to go to South America for the purpose of demonstrating a certain type of pursuit plane to the Chilean Government for the plane's manufacturer. As he was directing the assembling of the plane after his arrival, he fell from a twelve-foot platform to a concrete pavement, breaking bones in both legs. He was immediately taken to a hospital. Not long after, the Chilean Government called for a demonstration of the plane. It was a discouraging thing to have come so far for that very purpose and then to be planted in bed with one's legs in plaster casts. But Lieutenant Doolittle thought he saw a way out. He had steel braces made for the legs, had the casts removed, was carried out and placed in the plane with his feet on the rudder bars. It was as beautiful a demonstration of flying as the South Americans or the manufacturer's representatives, who came home and told the story, had ever seen. The performance in his hands far surpassed that of any of the competing planes. Later, the American newspapers from coast to coast heralded his flight over the Andes Mountains, the first by an American, with his crutches strapped inside the plane. Not that the crutches made much difference, since if the plane failed, a pilot would have little chance of escaping alive from such isolated fastnesses. But as one poet put it:

Then hats off to Jimmy! Can any one tell
Where he might have flown had his ankles
been well?

But to return to the accelerations tests. In his performance of them, Lieutenant Doolittle attempted to put the plane through all the maneuvers for which theoretical stresses had been worked out, but the actual stresses for which had never been
(Continued on page 742)

PAM'S COOKY SHOP

By GWYNNE DRESSER

PAM and her girl chum sat in the little playhouse which stood under an old willow beside the highway. "I'm afraid, after all, I won't be able to go on that camping-trip with you," Pam was saying.

"Why not?" asked the other, plainly amazed. "Last night you were making plans as hard as the rest of us. What's the matter?"

"Well, you see," Pam spoke slowly, "it's on my sister's account. Mother told me this morning that Dr. Gray said if Molly could go to the mountains for a few months, she would have a good chance of getting well. Now I couldn't go off on a summer's camping-trip and leave my sister here at home, knowing all the time that she ought to be at the mountains, could I?"

"Of course, it would be hard; but I don't see what you're going to do about it. How would your staying home help any?"

"It would help a lot, because Mother can't possibly afford to send Molly; but if I give up the camping-trip, the expense of that would go toward the mountain visit; and I'm sure that I could earn enough money besides, during the summer, to send Molly away."

"Earn it! My goodness, Pam, how do you think you could earn that much?"

"Oh, I have it all worked out; that's what I was thinking of when you came along. You remember what a lot of business Mrs. Richards had in her roadside market last year? Well, she isn't planning to run it this year, so I thought that, without any competition, I could run a little booth of my own, and sell sandwiches and cookies and things like that. So many people go by on this road that it ought to pay well."

"Pam Akerson, you're a genius!"

That's a marvelous idea—you could use the playhouse, could n't you? Lucky that it's right on the highway, all ready to be fixed up. Oh, what fun it ought to be!"

And the two girls walked away toward the house, busily discussing this new summer plan.

In two weeks the playhouse had been converted into a most attractive "Cooky Shop," as announced by the trim green-and-white sign swinging over the door. A row of gingerbread men stood peering out of the large front window against a background of sea-green curtains; and beneath the window, a row of holly-hocks stood peering up at the gingerbread men. Pam was giving the bird-house on the roof a new coat of paint when a large auto drove up and stopped, while several girls

attired in knickers and bright sweaters jumped out and hailed Pam with a shout.

"It's perfectly ripping!" one of them said, peeping in through the door at the tempting display of cookies which were piled in neat little stacks along the counter. "How did you ever do it?"

Pam laughed, pleased. "There was plenty of paint out in the shed, and so I made liberal use of it. The only thing I had to buy was the glass case for the counter, and I bought that second-hand from Mrs. Richards. I'm having punch, sandwiches, and cookies—make them all myself early in the morning."

"Let's have some—molasses, and chocolate—what do you want?—yes, two dozen—" the girls crowded around, buying generous quantities to speed them on their camping-trip. Finally, a few loud honks from the auto-horn sent them scurrying back to the road; and a minute later, with much waving of hands and cheering, they drove off and disappeared around a curve.

For some time after they had gone, Pam stood looking down the road. She did not see the road, though—she was seeing a pine grove, a sparkling lake, a brushwood fire, and white tents. She was smelling sizzling bacon and hot chocolate; she was hearing wind in tree-tops and squirrels chattering on overhead branches. But she shook herself out of this mood, and, glancing up at the house, saw her sister's thin, wistful face smiling at her from an upstairs window. And then she had a sudden swift picture of a mountain, with Molly sitting on top of it—

"I beg your pardon," a voice broke in. "You're not



"YOU CAN COUNT ME IN AS A REGULAR CUSTOMER"

kidding me, are you? Because if you have anything there to eat, I want to see it. A man gets desperate when he's hungry."

Pam looked around. A tall boy with red hair and freckles, astride a beautiful black horse, was grinning down at her.

"May I come in?" he asked, dismounting. "Been riding all morning, and I've sure enough cultivated a powerful appetite."

They went into the shop together. "Oh, boy!" he told her, "this is a place after my own heart. Give me some of those date-nut sandwiches."

He leaned on the counter, munching away with great satisfaction. "Who runs this shooting-match?" he asked, between mouthfuls.

"I do," and before long Pam found herself telling him the whole story.

"That's great!" the lad exclaimed heartily. "You can count me in as a regular customer. I'll tell the folks over my way about it, too, and they'll all come rushing. By the way, my name's—oh well, you can call me Red; everybody does."

"Are you one of the summer people?" Pam wanted to know.

"You guessed it. I belong over at the Riverside Colony. It's a stupid place, though; not much to do, so I go out riding by myself a lot; this is the first time I've been in this direction. Say, won't you do me up some of those cookies? I'll take them home and introduce them to Mother."

It was a morning in late August when the girl campers returned, looking like young Indians, with their brown arms and faces. Of course, they had to stop and see Pam, and incidentally to drink up her whole supply of punch. Pam's special chum remained after the others had gone, to tell about the high-lights of the trip and to find out how the cooky business had been going.

"Not so well, lately," Pam had to admit. "The cold weather has kept people from riding around as much as usual. And down at Burnham's they've opened up a big hot-dog place, so that a lot of the cars stop there instead."

"Yes, we noticed it when we came by," the other girl remarked. "I think it's perfectly hideous with all those ads plastered on the outside. I don't understand why folks stop at places like that when they can find such a darling shop right around the corner."

"I suppose it attracts more attention. Of course, I've had some business right straight along; the Riverside Colony people order from

me for their teas and parties, but I'm afraid I won't get as much as I need, even so. Oh dear! And I've got to send Molly to the mountains, somehow. She gets frailer all the time; and Mother has all she can do just earning enough to keep us going comfortably."

"Well, cheer up!" her friend encouraged. "It'll all come right; we'll see to it one way or another."

At that moment there was a clatter of horse's hoofs outside and a gay young voice calling, "Is Madame Proprietress within?"

Pam went to the door. "Oh, good morning, Red. What can I do for you?"

"Nothing for me, thanks. Oh yes, you can give me a sandwich—but I came to see if I could do something for you. Had much business since I saw you last?"

"Not much," Pam replied, a little mystified. "Why?"

"I thought perhaps it was time you had some. You'd better expect to be rushed to-day, then. Get lots of eats ready—the more the merrier. Be back later to explain." And wheeling his horse around, he went tearing off down the road.

"What does he mean?" asked Pam's friend.

"I don't know. He's up to something—I'd better make some more sandwiches. It's sure to be something important."

"Who is he, anyway? I've never seen him before."

"He's one of the summer people—a perfect brick. He buys simply oceans of stuff—comes in almost every day. And he got all the people he knew to come and buy, too. Why, the first of the month, when business was getting pretty slow, he even insisted on taking some of my things out and peddling them."

"Pretty nice of him! Then, from the way he spoke, he must have something big up his sleeve. Maybe you'll need help; suppose I make some sandwiches while you do some more cookies."

"Oh, that would be darling of you. But I have n't the slightest idea how much to make—how many people to expect."

"He said the more the merrier. I'll run home and change my clothes, and be back in a jiffy. This looks exciting."

"Here, wait a minute," said Pam, scribbling a note on a scrap of paper. "Would you leave this order at the grocer's on your way, so that he can bring the things along with his morning delivery?"

When her friend returned, carrying with her half a dozen loaves of bread,

Pam left her in charge of the shop and went to the house to bake a fresh supply of cookies and mix up some more punch.

The morning passed quickly in a whirlwind of work. By noon, great piles of piping-hot cookies and stacks of luscious-looking sandwiches were packed on the shelves and the counter.

"There!" said Pam's friend, "You ought to have enough to start on, anyway. It looks like rations for an army. I think I'd better run along home now; but maybe I'll drop around later. Good luck!"

After she had gone, there came a few hours' lull, when Pam began to wonder if she had done wisely to make such extensive preparations. "Why, this is perfectly crazy!" she thought. "He might have meant twenty or fifty—how could I tell? I should n't have done this without knowing more about it."

But she had a good deal of confidence in Red; something was sure to happen; otherwise, he would n't have acted the way he had, in such an excited, mysterious manner. The only thing to do was to wait and see.

So she sat out on the flat stone doorstep, in the shade of the willow-tree, listening to the monotonous trill of the cicadas and watching occasional autos whiz by, leaving a trail of dust in their wake. Once an auto stopped, and a fat man, wearing blue goggles, leaned out to ask if he could buy ice-cream here. Pam told him what she had, and, when he insisted on ice-cream, suggested the "hot-dog" place down the road.

She reflected a little mournfully on the number of times that she had sent people there and wondered if, by any chance, she might have made more by selling cold tonic, chewing-gum, and ice-cream cones, and making her shop giddily conspicuous with bright signs and placards. It really did n't pay to be artistic and dainty—though perhaps, if Burnham's had n't opened up business, she might have done better. And here it was the end of August; in a week or so the summer season would be over and there would be no more tourists on the road. And dear little Molly looking forward to her mountain trip—with still about a hundred dollars needed to make it possible.

A limousine drew up and two old ladies got out to buy some oatmeal cookies and punch. After they had gone, no one else stopped. "On a warm day like this," Pam thought, "they all want the cold things that I don't sell. And on chilly days no one goes by. Whatever could one do in such a situation?"

The afternoon passed; long shadows began to creep down from the wooded hill behind the house, and the cicadas were hushed by a refreshing cool wind which sprang up all of a sudden. But Pam was worried. Nothing had happened—no one had come, not even Red. Could it be that he had just been joking, just playing a trick on

again, a faint rumbling sound reached her ears. At first, she did not pay much attention; then, as it became louder, she glanced up the road in the direction from which it came and saw a most remarkable sight. A huge yellow bus, taking up the whole width of the highway, came rolling along. It was followed by another,

to give us our picnic supper?" one of the men asked her. "My son said he arranged to have it prepared by the Cooky Shop."

"Yes, sir; I—I think so," Pam replied faintly. "It's all ready. I don't know whether I have enough, though. I did n't have any idea how many to expect."



"ARE YOU THE YOUNG LADY WHO WAS TO GIVE US OUR PICNIC SUPPER? ONE OF THE MEN ASKED"

her? Oh certainly not! He was n't that kind of a boy; there must have been a mistake somewhere. But what to do?

She saw her mother coming up the road, walking as though she were tired after her long day's work at the library, and Pam decided not to trouble her, but to manage somehow by herself. If she put damp cloths over the sandwiches, they would keep until to-morrow; but even then, she could never sell them all.

Just as she was getting ready to close up the shop for the night, feeling discouraged and very sure that no one would ever come to buy things

and behind this a third—four, five, six—six big yellow buses! They looked like a circus parade; and Pam stood watching them in amazement.

The first one was getting nearer; it was slowing down; it suddenly stopped, right in front of the Cooky Shop. And the second one stopped, and the third also; and all the rest, crowding up, came to a standstill, too. Then people began to pour out—ten, fifteen, twenty-five—goodness, what a crowd! Two men were coming toward her, as she stood dumbly on the stone step; there was a boy with them—why, it was Red!

"Are you the young lady who was

"That's all right. Give us what you have; if there is n't enough to go around, we're willing to wait while you make up some more. We don't expect much—some of us have n't recovered yet from the banquet this noon. You are perfectly willing to let us picnic in your woods, are n't you? My son gave me to understand that it would be quite all right; and of course we will make it pay you."

Pam, so surprised that she could n't think what to do first, looked imploringly at Red. He winked at her, first with one eye and then with the other.

"Come on," he said; "I'll help you

hand the food out. I'm sorry I could n't tell you how much to make, but I did n't know myself, then."

When he saw the piles of sandwiches and cookies, he squinted at them a moment and finally declared. "I don't think that's enough. There are over a hundred people, and even though they're not very hungry, this won't go round. Tell you what—I'll get one of the buses to drive me down to the square, and I'll bring back some more stuff. You dish out what you've got, and by the time you're ready for more, I'll be back."

Red's father came into the shop while she was packing the food up in boxes. "The others have gone on to the woods," he told her. "Mr. Davison and I and a few others will wait and carry the supper. By the way, are n't you Miss Akerson—the one my son has told us of so often? I'd like you to meet Mr. Davison—come in here, Dave, a minute, will you?"

Mr. Davison, who had been walking round and round the little shop, scrutinizing it closely, came in, shook hands with Pam, and then began to scrutinize the interior as closely as he had the outside. Finally, he went out again, stood in the road, and gazed at the shop long and thoughtfully.

By the time Red returned, the men had gone up the hill with the first instalment of supper. Red staggered in with bread and bundles and immediately set to work helping Pam make more sandwiches.

"This is turning out just great!" he said as he sliced the bread with lightning speed.

"I wish you'd tell me what it's all about," answered Pam, buttering the slices and spreading them with cream cheese.

"That's right. I was going to explain, was n't I? I've been rushing around so all day that I did n't have time. Well, you see, this bunch of people is the Society for Beautifying the Roadsides. My dad's treasurer. They're having their annual convention now, with all the usual banquets, picnics, and outings. They were going to have a supper down at Watton's estate to-night, but this morning they got word that old Watton was ill, so of course he could n't entertain them. That meant a whole evening not planned for, so Dad suggested a picnic, out this way. That got me thinking—if they had to have a picnic, why could n't they come here? And if they had to eat, why could n't you feed them? I talked with Dad, and he said O.K. So here we are."

"Red, you're wonderful! Why, if I'd known about it ahead of time, I never could have done it. I wouldn't have dared—it would have seemed much too big a job for me to tackle."

By degrees, the whole society was supplied with supper; and it was a happy crowd which gathered on the

Next morning, while Pam was debating whether it would be worth while to open the shop that day, Red and his father drove up to the door.

"I want to tell you, first of all," the father said, "what a success the picnic was. We could n't have had a better supper or a nicer spot to eat it in. I've made you out a check for seventy-five dollars. If that is n't right, just say so. And now I have something more to say. You remember Mr. Davison? Well, he is chairman of a committee which has been making a study of roadside booths this summer for the purpose of awarding a hundred-dollar prize to the most attractive one. Last summer our society worked on getting trees planted along the highways; this summer we launched a campaign for cleaner and more decorative booths, in an attempt to abolish the advertisement-plastered hot-dog stands which make such ugly blotches on otherwise beautiful stretches of road. I don't know whether you've heard about this—"

"Why no! I didn't know a thing about it—" Pam felt a little scared and a little thrilled, not daring to let herself guess what was coming.

"The contest was open to every one in the county, and Mr. Davison, with his committee, has spent almost the entire summer covering the roads and trying to 'clean them up,' so to speak. The prize-winner was to be officially announced last night—"

Here Pam held her breath, and Red could hardly sit still for excitement.

"It was all decided to give the prize to that blue-and-white ice-cream booth over at Four Corners. But when Mr. Davison came here and saw your Cooky Shop, he was so charmed by the Dutch shutters and hollyhocks, and the bird-house and green-and-cream color-scheme, that he conferred with his committee and it was decided that the prize should go to you instead." And he handed Pam an envelop.

"And say, Pam," Red added, after a glance and a nod from his father. "Next week Dad's going to take my sisters and my cousin Dick and me on a camping-trip up at the Twin Lakes, and we want you to come too."

Pam's eyes shone. "Oh, what dear people you are! And the Twin Lakes—such a marvelous place to go! Why, everything seems to be happening all at once now—everything I could ask for!"

A picture passed quickly through her mind—a picture of blue water and white birches, and sandpipers on a pebbly beach; and looming up into the picture was a mountain, with Molly sitting on top of it.

ORCHARD PIRATES

By EDITH D. OSBORNE

MOCKING birds, with silver notes
Rippling from your happy throats,
Sing another song, to pay
For the fruit you stole to-day!
Rascals! you have sampled each
Purple fig and luscious peach
Hung like jewels on the boughs,
Never heeding threats or vows!
Nibble, nibble, taste and eat—
Golden pear and berry sweet.

Little do you know or care
For my cherished beauties there!
Greedy instincts every time
Lead you to the fruit most prime.
Berries, rich and ripe and red,
Honeyed nectarines, o'erhead,
Ruddy cherries dangling near—
You have neither shame nor fear;
Boldly eat your fill of these,
Pirates of the orchard trees!

Yes! I see you, little thieves,
Hiding there among the leaves!
Ah, the melody begins—
You are paying for your sins
With a song that thrills to heaven.
Dear wee robbers, you're forgiven!

crest of the hill to watch the last of the sunset. After the orange streaks had dulled to gray, the people scrambled down from the hilltop, and before long were rumbling off again in their yellow buses.

"If it's agreeable to you," Red's father told Pam as he left, "I'll be back to talk business with you tomorrow morning."

Pam cleared up the debris of supper preparations and set the little shop in order before closing it for the night. The counter was quite bare—nothing edible was left, except the somewhat dusty row of gingerbread men in the window.

"It seems too good to be true!" the girl thought. "I ought to make quite a bit on that picnic—just when I began to despair of ever getting enough!"

Then she went to the house to tell her mother, who very wisely had kept out of the way and asked no questions.

THE DRAGON SPEAKS

DERK BODDE

CHINA is coming out of her long sleep at last, a sleep of many ages. This huge country, larger than the United States, and with a civilization which was already old when the Roman Empire was at its height, has shaken off its lethargy and is now rising.

The civil war going on at present is the result of a patriotic movement, originating from the great city of Canton in the south, and having for its object the unification of all China into a single country, instead of the many semi-independent provinces that now exist. The Cantonese, who are back of this movement, form a party called the Kuomintang, or Nationalist Party, and are fighting several powerful northern war-lords, who have combined against their common enemy.

Another great object of the Cantonese is the abolition of foreign customs-control, of extraterritoriality, and of all the other privileges that foreigners now enjoy in China. By foreigners is meant Americans, Europeans, and Japanese.

Before 1840, trade with China was restricted by many laws irritating to foreigners, and the "Son of Heaven," sitting grandly on his throne in far-off Peking, looked only with scornful eyes on the few foreigners then in the country. All this was changed, however, by the disgraceful Opium War of 1840.

The trade in opium, which had been introduced into China from India, had become so harmful that a determined effort was made to stamp it out. A commissioner, sent out by the Chinese Government, on arriving at Canton seized twenty thousand chests of the drug that were stored in foreign warehouses, and had them destroyed. As retaliation for this act, Great Britain declared war on China, and quickly subdued her by sheer force of arms. The resulting treaty of 1842 provided that Canton, Shanghai, Amoy, Foochow, and Ningpo should be opened as treaty-ports where foreigners should be allowed to carry on trade. Hongkong, situated on a small island near Canton, was ceded to England, and a heavy indemnity was paid her, partially for the opium that had been destroyed. Thus was

the notorious opium trade forced on China, at the mouth of the cannon, and thus were the first treaty-ports opened to the foreigners. In succeeding years other treaty-ports were thrown open, always under compulsion, until now a glance at the map of China shows more than fifty foreign concessions in existence.

In these concessions the government is carried on under British, French, or Japanese law, as the case may be. There may be nine Chinese to every foreigner living in a concession, and Chinese may pay more than half the taxes, yet they are not allowed any voice in the government. A white man who commits a crime may not be arrested by the Chinese police, and can be tried only under the law of his own country. Each concession is a haven where outlaws may flee from the Chinese authorities and be as safe as if they were in a foreign country. Imagine a Chinatown in New York to which an American bandit could flee for safety after committing a holdup; imagine

this Chinatown being governed by a Municipal Council, made up exclusively of Chinese, and wholly under Chinese law, and you get a fair picture of conditions in such cities as Hankow and Shanghai. This is what is meant by extraterritoriality.

It has been said, with much truth, that it is foreign enterprise that has made these treaty-ports the splendid places they are. Hongkong was a deadly fever-hole before it was given to England, yet now it is one of the finest ports in the world. Shanghai, once a low muddy swamp, is now the New York of the East. It must be remembered, however, that these ports were never surrendered willingly, but always at the point of a gun. It is natural that they should be regarded as a national humiliation by the awakening patriotism of the Chinese.

The second great cause of anti-foreign feeling in China is the foreign control of customs. Over eighty years ago, the treaties were signed which make China to-day the only country in the world not allowed to fix her own customs tariff. These treaties limit both her import and export duties to only five per cent. That is to say, if a doll imported into China costs one dollar, the Chinese government receives a tax of only five cents, while the usual tax in other countries ranges all the way from sixteen to sixty cents on the same article. The foreign powers have often said that they will give up both extraterritoriality and customs control when China is ruled by a strong central government. But how can the central government be strong as long as the foreign customs control leaves it with insufficient funds with which to operate?

The only hope for the unification of China seems to lie in the South. The South has always been liberal and progressive. It is in the South that all the great movements have started. And it is in the South that Dr. Sun Yat Sen, often called the George Washington of China, stirred up the revolution, in 1911, which resulted in the overthrow of the old Manchu dynasty and the setting up of the Chinese Republic.



說龍



A GLIMPSE OF OLD CHINA--A CANAL SCENE

習俗

The North, on the contrary, is old-fashioned and conservative. It is ruled by old men with old ideas, and its capital is the old city of Peking. When speaking of it one naturally thinks of the mighty war-lords of the North: Chang Tso-lin, once a Manchurian bandit chieftain; and Wu Peifu, a poet and philosopher, both of whom control large sectors of China. They are picturesque figures, these two, but they fight merely for their own personal interests. It is natural that they should be looked on favorably by most of the foreign nations, for as long as they remain in power, China must necessarily continue to be a collection of feudal and independent provinces, and extraterritoriality and foreign customs control will continue indefinitely.

Then there is Feng Yu-hsiang, the famous "Christian General." Whether he will join forces with the Cantonese is a moot question. And finally there are Eugene Chen, foreign minister of the Cantonese Government, and T. V. Soong, minister of finance for the Nationalists, two of the

most brilliant and intelligent figures that one can find anywhere. Chen, whose mother is said to have been a South American, was born in Trinidad, one of the West Indies, educated in England, and is now admitted to be the best writer of English living in China to-day. Soong, a young Harvard graduate, has done wonders in financial administration, raising Cantonese Government revenues from nine to forty-eight million dollars a year without increasing a single tax.

But, perhaps even more outstanding than these men is Chiang Kai-shek, the brilliant young military leader, who is heading the Southern forces. He has well been called the "Napoleon of China." In the spring of 1926, under his leadership, the Cantonese started their advance. And they have been advancing ever since, marching farther and farther northward until recently they reached the banks of the Yangtse-Kiang, the great river which bisects China into North and South. There they have captured Hankow, Nanking, and Shanghai, and in so doing have attracted the attention of the whole world. And now they are advancing into the

enemy's country on the north side of the Yangtse, so that their progress will naturally be slower. In spite of the fact that Chiang's troops are numerically inferior to those of his opponents, it seems probable that they will ultimately conquer, for they are well-disciplined, patriotic, and actuated by the high ideals for which they fight. The conflict strongly resembles our Civil War, with their South taking the place of our North, and the unification of the entire country as the object.

In the struggle of the Nationalists against foreign domination, there is much to remind us of the American Revolution. There is the same fight against taxation without representation, the same struggle for fair trade. On May 30, 1925 there even occurred something very much like the famous Boston Massacre. The Chinese workers in Japanese-owned cotton-mills in Shanghai were toiling at that time fourteen hours a day, under unspeakable conditions, for a wage of forty cents. Finally, they rose and demanded reform. This demand being refused, they organized a strike which resulted in the arrest of many

of them by the Shanghai Foreign Court as "agitators." Several Chinese students, who then took part in an orderly demonstration as a protest, were also arrested. They were taken to a police-station in the International Settlement, followed by a large crowd.

In front of the station, the British Indian police, after giving only ten seconds warning in which to disperse, fired on the defenseless crowd, killing twenty and wounding many more. Is it strange that such occurrences should stir up anti-foreign feeling among the Chinese?

The fact that Russian influence is backing the Cantonese side has done much to discredit the Nationalists. We see in this war the attempt to get communism established in China, the attempt to excite the Asiatic peoples into a world revolution. England, especially, fears that in getting a foothold in China, Russia may be able to strike at India.

It is undoubtedly true that Russians have considerable influence in Canton.

The fact is well-known that there are several Russian advisers in the Nationalist government. And it is not

surprising that this should be so, for of all foreign nations, Russia has treated China with the most consideration these past years. She has given up all the unequal treaties and privileges, so that a Russian living in China is now entirely under Chinese law and jurisdiction.

But the Russians have made the mistake of pushing their propaganda too far. The Chinese have never been interested in a world revolution. They are a peace-loving people, and desire only two things: the unification of China, and the abolition of the unequal treaties with foreign nations. This state of affairs has resulted in a definite split in the Nationalist party during the third week of April. On the one side of the split stand the radicals, the "reds," who are backed by Russians and who represent lawlessness and disorder. On the other side stand the conservatives, the educated classes, who are orderly and law-abiding. These conservatives have tried to oust the Russians from Canton. The "reds," on the other hand, have declared Chiang Kai-shek deposed and an outlaw. The outcome of this struggle is of vital im-

portance for China, for if the "reds" gain the upper hand, there is no telling what may happen.

At the present time it looks as though the conservatives would win. If this happens, it is probably only a question of time before the northern war-lords will surrender.

Since 1840, China has lost Hong-Kong and Wei-hai-wei to England; Indo-China to France; and Korea and Formosa to Japan. Tibet and Mongolia have become practically independent. China can lose no more. In the years to come, she will surely do her best to regain some of the glory which so impressed Marco Polo when he visited Cathay in the Middle Ages.

And so when we read in the newspapers that another city has been shelled, or that another foreigner has been killed, let us remember that in every great movement there must be the lossing of some innocent lives. Let us remember the example of our own American Revolution. And let us sympathize with the great principles of liberty and justice for which the Chinese are fighting—principles which must inevitably make the Republic of China a true Republic indeed!

洋鬼



A PAGODA ON HANGCHOW BAY

The AMERICAN ARMY of TWO

(An Incident of the War of 1812)

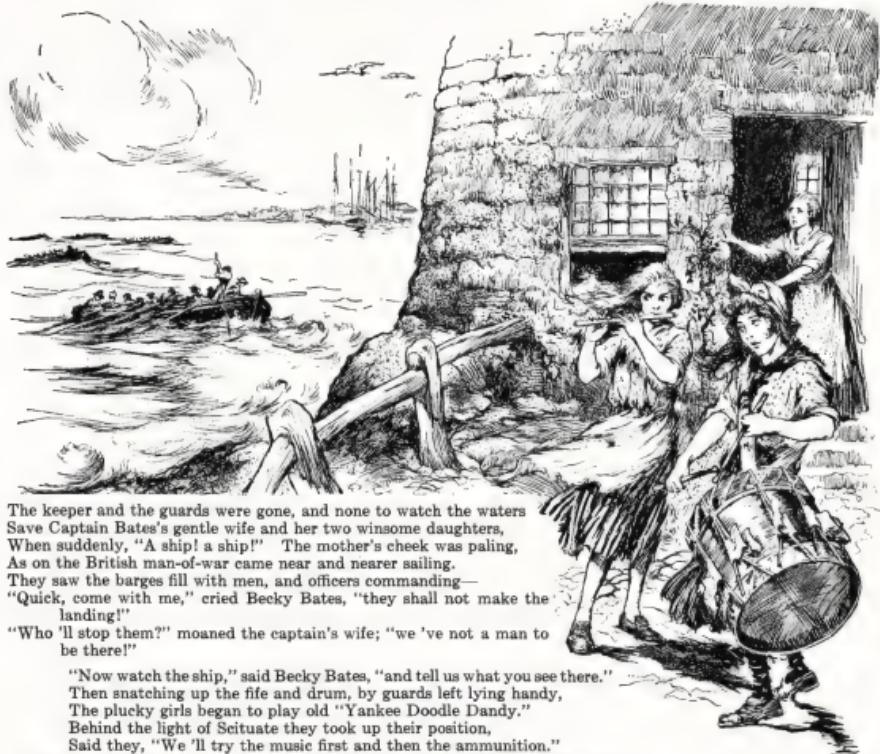
by Florence Boyce Davis

FAITHER 'n I went down to camp"—of course, you know the jingle,
And when the band strikes up the tune it sets our blood a-tingle,
For many a record of the past can show it came in handy
To help a patriot's cause along with "Yankee Doodle Dandy";
"Yankee Doodle, keep it up!"—long let bugles ring it!
"Mind the music and the step"—that's the way we sing it.

'T was off the shore of Scituate (and hereby hangs the story)
When few in number were the stars that beautify Old Glory;
'Twixt Mother England and her child was fitful trouble brewing,
And neither one felt rightly sure what t' other might be doing;
The *Bulwark*, British man-of-war, lay just outside the harbor,
And sailors roamed the shore for food wherewith to stock their larder;
The settlers gave their gardens up, protesting as they gave them,
But drove their cattle to the woods and hid them there to save them;

And when from bad to worse it went they clamored for protection,
And Colonel Barstow's regiment was sent to guard the section.

Warm fell the sun of early fall o'er ocean wave and shallow;
The sailor turned him to his ship, the plowman to his fallow;
The country wore her harvest garb of quiet strength and beauty,
And trouble seemed so far away the guards relaxed their duty.
The old lighthouse at Scituate upon a pleasant morning
Became the scene of great distress without a hint of warning;



The keeper and the guards were gone, and none to watch the waters
Save Captain Bates's gentle wife and her two winsome daughters,
When suddenly, "A ship! a ship!" The mother's cheek was paling,
As on the British man-of-war came near and nearer sailing.
They saw the barges fill with men, and officers commanding—
"Quick, come with me," cried Becky Bates, "they shall not make the
landing!"

"Who 'll stop them?" moaned the captain's wife; "we 've not a man to
be there!"

"Now watch the ship," said Becky Bates, "and tell us what you see there."

Then snatching up the fife and drum, by guards left lying handy,
The plucky girls began to play old "Yankee Doodle Dandy."

Behind the light of Scituate they took up their position,

Said they, "We 'll try the music first and then the ammunition."

"Father 'n I went down to camp"—the fife shrilled out a greeting,

And Nabby gave the army drum a most terrific beating;

The martial strains went floating off across the harbor waters,

And soon the captain's wife stole out with tidings for her daughters:

"The barges halt—they 're turning back—I heard the ship's gun call them,

And 'pon my soul, I do believe they fear what may befall them!"

Then in and out, and bringing word, her laughter overflowing:

"The frigate 's hoisted all her sails, and oh, my dears, she 's going!"

Around the light of Scituate swift sped the captain's daughters

To see the enemy depart beyond their harbor waters;

Her sails were spread—along the coast no man-of-war was coming;

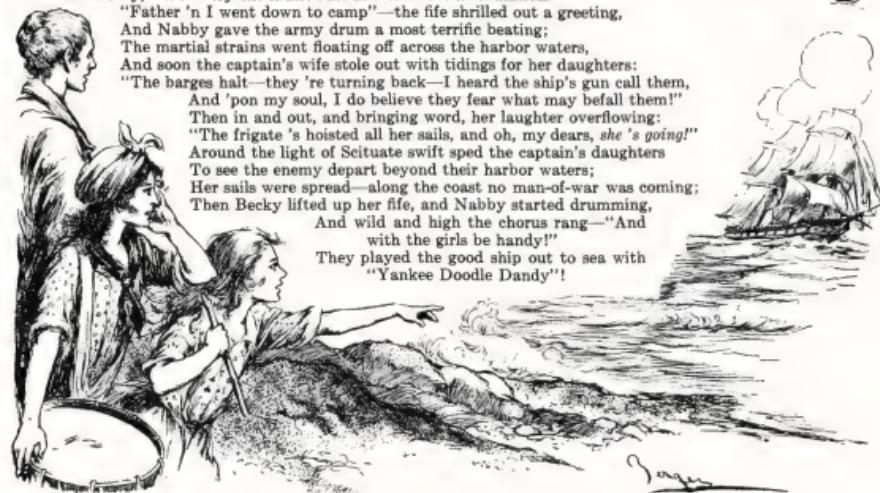
Then Becky lifted up her fife, and Nabby started drumming,

And wild and high the chorus rang—"And

with the girls be handy!"

They played the good ship out to sea with

"Yankee Doodle Dandy"!



TWINKLE, LITTLE MOVIE STAR

By LORRAINE MAYNARD

SYNOPSIS OF PREVIOUS INSTALMENTS

As the beloved little star of the Pleiades Picture Company, Vivi Corelli confidently shows Mr. Solomon, an impatient director, how to manage Scamp, the trick police-dog, so that he will give a fine, heroic performance in a fire scene. Later, she is startled by Mr. Solomon's angry comment that she is getting too big to act in pictures herself. Vivi comforts her mother's fears by declaring that nobody else could swim wearing the fish-tail costume designed especially for Vivi in her next production, "Silvershell." Yet when the costume is tried on she has grown so much that it must be made larger, and the picture is again postponed. Papa Bopp, an old carpenter, tells Vivi that her father, whom she cannot remember, used to be an electrician at the studio and went off to experiment on his inventions. Meanwhile, Vivi supports Mother until he can return, and Mother

worries because Vivi's contract, soon to expire, has not been renewed. While working all night on retakes, Ben, the cameraman, calls attention to the new Corelli candles, named, as Mother guesses, after Vivi, as a compliment. Soon after, Vivi is disturbed to find a new girl, named Denys O'Dale, being "tried out" as though to take her place. However, when Vivi goes to the president's office, expecting to be dismissed, Scamp follows, and Denys is so terrified by the dog that Vivi is chosen to play the part of *Little Red Riding Hood*, instead. During the filming of the story, Vivi carries a rabbit in her basket and Scamp, as the wolf dressed in *Grandmother's* nightdress and cap, chases it from the stage out through the streets. Vivi and the director, with Perry the assistant, and Ben, rush to overtake them in an automobile.

CHAPTER VII

WHAT THE CAMERA MISSED

THE touring-car kept ready for Mr. Solomon's use stood by the curb. There was a colored boy called Snoozer nodding over the wheel, and, as usually happened, a camera on a tripod set up for work in the tonneau. Vivi scrambled into the front seat before any one could tell her not to. A moment later the director flung himself in behind. Ben and Perry hopped on the running-board.

"Hurry up! Follow the dog! He'll get run over! Beat it!"

Thus rudely awakened, Snoozer, almost pale with fright, shot the car forward in response to the director's excited commands. It lurched, gears rasping, up the drive, all four passengers pointing and whistling, then rounded the corner and headed down the main street of the town.

"You don't think—Scamp would—hurt the poor little rabbit?" quavered Vivi, prodding the young assistant's arm.

"Hare and hounds!" answered Perry, with a grin.

"It's all the rabbit's fault for running away!" she retorted, her cheeks flaming.

"There he goes—by the drug-store!" screeched Perry, leaning far out, like a brakeman.

"Stop him! Why in thunder doesn't somebody stop him!" roared Mr. Solomon, who had hitched forward until he was nearly sitting astride one of the tripod legs, his hand resting on the camera-box for balance. "The boobs! That dog's a cinch for anybody to catch!"

"I don't see the rabbit anywhere," said Vivi, innocently, getting to her knees on the front seat.

"And you won't!" snapped the director. "Sit down!"

She obeyed, waving to her friend the big policeman as they reached the first cross-street. He was holding the

traffic back for them, an indulgent smile on his face, and he brandished his white-gloved hand at her as the car whizzed by.

"Say! Why in the dickens didn't that cop grab Scamp instead of making plenty of room for him to run past!" stormed the director again. "Speed up, Snoozer, there's an empty street for our benefit! I don't see how Scamp ever got such a head start on us. Maybe the next officer, up by the garage, will corner him.... Nope! By golly! he's clearing the way for us too! What do the idiots think we are, a parade or a fire-engine?" His eyes raked the distance between the car and that outlandish figure bounding close to the curb. Along the sidewalk many people had paused to watch, for, although the town was used to the strange doings of motion-picture folks, everybody seemed curious enough to stop, look, and laugh. And no wonder! By this time Scamp had become so tangled up in the folds of his nightdress, ripped to tatters by his claws, that his progress was far more comic than swift. He would halt, bounce into the air, roll clumsy a few yards, and then, struggling to his feet, start all over again. For he could only run with his two front legs that were thrust through the slits in the nightdress. His two hind legs acted as brakes.

"Grab that dog!" bellowed Mr. Solomon, as if the whole public should carry out his orders. But shrill giggles were the sole response. Evidently Scamp was enjoying the excitement, or else the threatening nearness of the director's voice spurred him to prolong the mischief. At any rate, as the car swerved close in he lowered his head and bolted among the feet of the sidewalk onlookers.

Ben and Perry dropped off the running-board and darted through the crowd after him. Vivi sank back in relief to wait. She was no longer

worried about the rabbit—it must have got safely away—and Scamp was unharmed.

"Oh, gee, don't I hope I show in the picture!" squealed a small boy, who had shinnied up a telegraph-pole near by.

"Yes, that is too! It's Vivi Corelli!" screamed a shop-girl, hanging out of a window, to some one in the street below. "Sure I know! I've seen her working lots of times!"

Vivi spun around, wide-eyed, to Mr. Solomon. "Why—why," she faltered, "they all—everybody—thinks we're just—acting!"

The director, she noticed now, was leaning over the camera in a way that might mislead any one into thinking that he was taking pictures. His hand jerked off the box and into his pocket, while he eased back on the seat, a silly calm overspreading his face. "The boobs!" he muttered.

The crowd parted and Perry emerged, dragging the culprit. Scamp's eyes rolled wickedly and his tongue pressed like a pink lining through the lace cap that had slipped down, muzzle-wise, over his nose.

"Take your disgraceful *Grandmother*!" scoffed Perry, plucking off the mud-stained bonnet as he crammed Scamp under Vivi's feet in the front of the car. "You'd think he'd have sense enough to know he can't run wild and behave like other, ordinary dogs! He's smart enough to know he won't be punished like one! Here he's ruined a costume, wasted an afternoon's work, and lost us a rabbit—"

"Why, Perry! It's good for him to run!" flared Vivi. It did n't take much to make her defend Scamp.

"Huh! That dog might save his pep for running in a scene," rebuked Mr. Solomon, as the car backed and turned. "He'd get just as much exercise!"

"But—but," sputtered Vivi, "he's got to have fun!"

The director's glare froze her into silence, but as they drove to the studio she sat very straight, bewildered by what she had said—by the sudden, perplexing conviction that Scamp had a right to play, to enjoy himself once in a while, even if it was real and not make-believe.

"—what worries me," rose Ben the photographer's voice in tones of self-reproach, "is that my camera

face from Papa Bopp's shoulder. "Oh, darling! I—we've got such terrible news—such a disappointment for y-you!" she sobbed. Vivi reached up to comfort her, but before she could explain, Perry came shambling down the stairs. Mother and Papa Bopp quickly turned their backs.

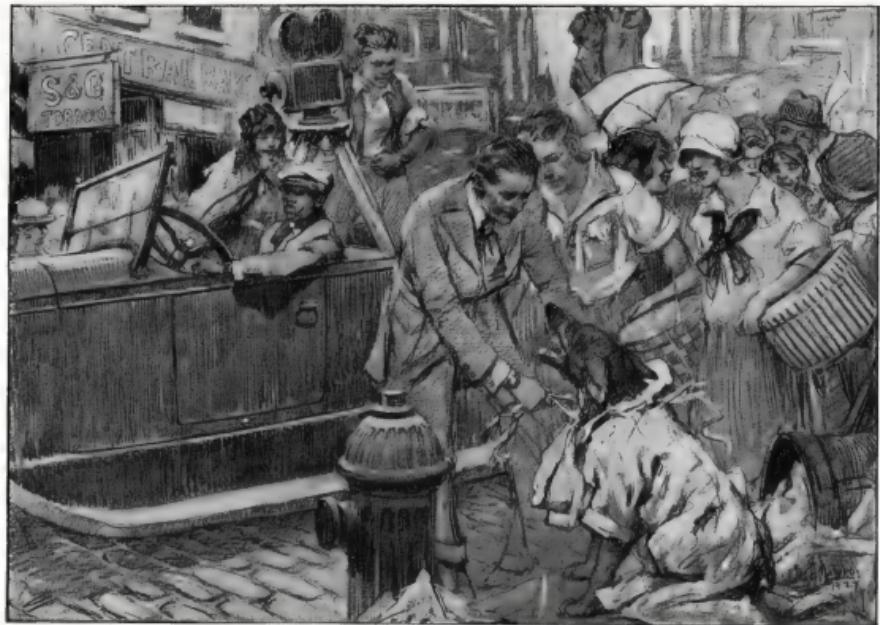
"Find your basket, honey?" asked the young assistant director.

"Oh yes, thanks, it's here." Vivi

Bopp. "Please tell me quick," she begged. "Is it about—"

"'T ain't nothing much," floundered the old man, tugging at the straps of his overalls. "Leastways—if your ma had n't took it so to heart—"

"But when I came down after you, Vivi, and—got talking," Mother interrupted tearfully, "and then found out— Oh, you tell her!"



THE CROWD PARTED AND PERRY EMERGED, DRAGGING THE CULPRIT*

missed the whole blooming show! Wasn't I the dumb one! Think o' losing the best 'comedy exit' Scamp ever staged for us—"

"Oh," thought Vivi, "Scamp runs and frisks about and does n't care whether he's supposed to be acting or not, because—he's just natural. But I—I always save my play feelings to put in a scene instead of wasting them in a game, for fun—I wonder if I'm forgetting how to be—just natural—"

"Oh dear! Oh dear! Whatever shall we do!"

"Why, Mother! What's the matter?" Vivi jumped the last few steps to the sawdust-covered floor of the carpenter shop and rushed forward.

Mrs. Corelli lifted a tear-stained

grabbed up the "prop" she had forgotten in her haste to join the pursuit after Scamp. "I'm sorry we lost the rabbit," she rambled on, to distract Perry's attention, though her own eyes strayed helplessly to Mother's quivering cheek that was half visible. "I hope he got away to the country and—why, Perry!" Vivi ran to him. "Perry, what's the matter with you?"

He bent down and whispered in her ear, "Nothing, honey, only—I thought I'd tell you the latest news—somebody's just got back from Block Island."

"Oh!"

"That's all. And we're through work for to-day. So long!" He began loping back up the stairs.

Vivi flung out her arms to Papa

"Never mind," said Vivi, in resigned tones. "I guess I know already."

"Don't you care, sugar, even if they are n't—"

"They are n't? What are n't? And are n't what? Mother! Tell me!"

"It's—oh, darling, you remember the new lights, the ones Ben pointed out to us, the 'candles'?" began Mother, and then crushed a handkerchief to her lips.

"Yes, but what about them?" demanded Vivi, growing more mystified and desperate every minute.

"They are n't—the Corelli candles are n't named after you, after all!" Mrs. Corelli's voice ended in a wail and her eyes searched Vivi's face as though dreading the effect of her announcement.

"Is that all!" Vivi's words sounded queer and flat with relief. "Why, that's *nothing!* My goodness, I'm sure I don't care who they're named after!" She leaned limply against the work-bench, wondering why Mother should have been so upset.

"But, Vivi!" cried Mother, shrilly. "Can't you guess—"

"You see," put in Papa Bopp, his blue eye rather watery, though his brown one kept stern as ever, "first your Ma was disappointed, and then she was so surprised she did n't know whether to laugh or cry, so she cried!" The old man kept turning apologetically from Mrs. Corelli to Vivi. "It seems them candles are your pa's invention, sugar."

"They are?" Vivi drew back, stunned, from Mother's arms.

"Yes, siree! I thought, of course, as how your Ma knew. Then when she mentioned them new lights being fancy-named after you, I up and says: 'Why, ma'am, them's your own husband's invention he's been working on, and I reckon they're a big success, at last. They're called after him. Probably he's been waiting to surprise you—'"

"Oh! Oh!" Vivi gasped in astonishment. That Daddy's long absence and his years of experimenting had been rewarded at last were unexpected realizations. Lately she had come to think of him as so far away—

"Don't cry, darling!"

Vivi shook the misty, far-away look out of her eyes. "I was n't going to cry," she said stiffly. "I have to save my cry-feelings for when I'm just pretending to feel bad, in a scene."

"Why, Vivi!" exclaimed Mother, her eyes beginning to shine through their tears, "this is a very startling discovery—and it's been a—a shock to me in many ways, because I supposed, of course—and I told everybody—that the candles were named after you—"

"But anyway," said Vivi, an excited pitch creeping into her voice, "I guess we'll be hearing from Daddy pretty soon now, won't we?"

Mother nodded, as though she was still dazed by this news which had turned out, after all, to be good.

CHAPTER VIII

MR. JEROME'S WAY

WHEN Vivi, unable to write to Daddy himself, begged Mother to get her a tutor, she learned that every motion-picture studio is obliged by law to provide lessons for any child of school age working there. "But then why have n't I had—" began Vivi, dumfounded.

"Darling, can't you understand? The authorities have n't considered you 'of school age' yet,—you've kept very small,—and I certainly don't want to call their attention to the fact that you're old enough—" And in answer to Vivi's reproaches, Mother promised to teach her what she could, herself, "between pictures."

Luckily, Perry had been able to secure a duplicate rabbit, a sort of twin understudy, with which to twin the present production, and after the usual retakes and delays, "Little Red Riding Hood's" five reels were at last delivered into the hands of the cutters. On Sunday, her first free morning, Vivi had just settled down with paper and pencil when the phone rang, and over the wire skinned the name "Mr. Jerome." Instantly, everything was dropped, forgotten, in a wild rush for the studio, while Vivi's heart sang to each turn of the subway wheels, "Mr. Jerome is back! Oh, Mr. Jerome is back!"

Packed into the director's office they found Perry, Ben, and Mrs. Bopp, besides a loyal crew of head carpenters, electricians, and staff technicians, all welcoming, planning, conferring with one another. As Perry expressed it, "We can powwow all nights and holidays and the law doesn't think we're working unless somebody's grinding a camera!"

Hiding her elation, Vivi pushed through to Mr. Jerome's side. She said politely, "I'm so glad you're back, sir!" And the director, a plain, modest-appearing man, shook her hand with grave courtesy as he replied, "Thank you, Vivi, I'm mighty glad myself. And you're looking fit as a fiddle."

Vivi understood, of course, that he meant much more, just as she had. But it is a custom of the studios that when people are working together, their friendship must not be publicly shown, and no matter how great the sympathy between a star and her director, their conduct must always seem formal and businesslike. That was why Vivi felt not the slightest rebuff at Mr. Jerome's brief greeting, but sat down, content to be in his presence, while he made verbal corrections in his working scenario,—a typist pounding off the notes as fast as they were announced.

"Call up the Aquarium, Perry," he would say in his quiet, but amazingly efficient, manner, "and find out how many tentacles on an octopus, for Mrs. Bopp.—Don't guess about those seaweed plants. Props, get accurate details. The man up at the natural-history museum can tell you all about submarine gardens.—Oh, Ben, you'd

better warn those lithograph people their last tricolor posters were—well, not so good. If they can't use better dyes on our next stills, I'm afraid we'll have to let the job to some one else.—Here's my O. K. on this order for twenty-five flying harnesses. We may not use them right away, but the extra girls might like them to practise in." So it went, until the floor turned white with a litter of loose sheets, and the smoke from Mr. Jerome's pipe wafted like a fairy fog across the room.

Under the director's table, where the waste-basket belonged, wedged Scamp, as close as he could possibly get to his newly returned master, and from time to time he would try to shove nearer still. Then Mr. Jerome would murmur, with difficulty uncrossing his knees, "There, there old fellow, it's all right!" And Scamp's tail would whack the desk walls furiously, gradually subsiding to a thump, a slump, another thump.

Dizzy, but not impatient, Vivi awaited her turn for instructions. Staff men hurried in and out, telephoning for information or receiving orders. "Only six weeks to turn out a big picture like 'Silvershell!' Gosh, how 'll we do it!" grunted Perry, as he hustled off with Mrs. Bopp. Ben tagged after, grumbling, "Come on, you chaps, and help mend my shutter, if we shoot to-morrow!" And Mrs. Corelli, headed for the dressing-room, paused to inquire, "Why is there such a rush, Mr. Jerome?"

"I'm sorry, but it's not for me to say, Mrs. Corelli. President Grimshaw demands that the picture be finished by the end of August.—I'll not drive Vivi too hard in a day, you may depend on that."

As Mother thanked him and passed on out, the director turned, smiling at Vivi, who alone remained. "I'm having a motor put in your swanboat, Toots. It ought to make the thing less dangerous—"

THE main set for "Silvershell" occupied half of the huge studio stage, and all the office workers came down to witness the making of the most spectacular scenes. Mr. Jerome signaled to the band leader, "Now, all together on the chorus, please!" and, as the music struck up, twenty-five mermaids burst into song, "By the sea, by the sea, by the beaut-i-ful sea!"

At the chord which was her cue, Vivi parted the back-drop of undulating eel-grass and floated, in mid-air, toward the foreground. A silver-thin piano-wire, invisible to the camera's eye, was attached to the
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OB AND THE OAT THIEF



By CHARLES J. FINGER
WOODCUTS BY PAUL HONORE'

"TELL a tale and forty more will come out of the air," say the Gauchos. True enough. Here are a dozen tales told, but a hundred more to be told, with another hundred which people say should be told. One wants the story of the Gentle Folk, who are said to live in the Andes country, and who look upon gold as a danger and a snare, because their forefathers remembered Pizarro, who wasted Peru because of a lust for gold. Another wants the tale of Sir Pepper-corn, which is all about a strong dwarf of Serbia. A third asks for the story of Foley's Ghost, which is Irish, and blood-curdling, and hair-raising, and all about hidden trap-doors and secret passages. A fourth has heard something about the Faithful Goblin which Eugene Field used to tell, but never wrote. Then there are African tales like that of the King and the Ju-ju tree, and Javanese tales like that of the Wonder Tree, which I have written once for the Red Cross, besides at least fifty Canadian tales, very excellent, having to do with flying boats and headless men and caverns. And the best of the cavern stories is that which tells of Ob and the Oat-thief.

An Ob is a creature something like a gnome, something like an imp, something like a brownie, yet neither one of them. And Pierre, the Oat-thief, seems to have been the man who saw one most recently. Before his adventure there had been plenty and to spare who knew some one who knew some one else, who had been told of some one who knew some one, who had a friend whose wife's brother had seen one, or perhaps several of them. And, according to such tales, sometimes years went past without

an Ob appearing. Then perhaps one was seen. At other times they thronged like ants, some of them crying out, some of them laughing, some thrusting their fellows out of the way and pushing and elbowing, but nearly always carrying something, though what they carried was never known until Pierre the Oat-thief told his tale. Nor was it known whether they came from the air, or from the ground, or from the forest, or from the marsh. Some said one thing, some another. But once, when there was some trouble about oats being missing, Pierre said that he had seen an Ob in the barn, lying under the rafters, and suspected the creature of stealing the horse-feed. Another time he said that on coming suddenly into the stable, he saw an Ob sitting in the manger watching the horses munch hay. Then came the night on which Pierre saw one close, talked with one, walked and rode with one; and this was the way of it.

One evening Pierre was sitting in his cabin, which was close to the stable belonging to the logging camp, for he was in charge of the horses. He was sitting in his cabin before a blazing fire, smoking his pipe, and the unwashed plates and tin cup were still on the table. Now the night was a little chilly and the wind came through the cracks in the wall, so Pierre growled and grumbled. "If," he said, "If I had money, I'd not stay here long. And maybe by the end of winter I'll have saved up ten sacks of oats. Nor have the horses missed it, and what's never missed is not lost, and what's not lost can't be stolen. But, oh to be a rich man! If I could only know how it felt to be rich, even if only for a day."

Suddenly he became aware of a strange creature standing on the table, almost at his elbow. Naturally he was startled, hardly believing his eyes. So, by way of passing matters easily, he bent down and fell to stroking the cat which sat on the hearth, more for company's sake and to get up his courage than anything else. All the while he pretended not to see the creature on the table, though he kept a sharp watch on it out of the tail of his eye. Then he thought to himself that perhaps he was ill, or that he only fancied he saw something. Also, he told himself, as he stroked the cat, if the creature was something imagined, then there would be no shadow; but if it was real, then there would be a shadow. And having made up his mind that way he straightened up and looked again, but boldly and squarely, and there, sure enough, was the creature, and it had a shadow, for that shadow danced as the candle flickered in the wind.

The creature was not more than a foot high. It had one eye in the middle of its forehead, and that shone red, like a glowing stick when it is blown upon. Its mouth was round, like a whistling mouth, and its nose was knob shaped and white as a piece of china. Its hands and arms were like those of a monkey, but its legs were like a frog's. Its clothes were bright-red and blue and green, and on its head was a pointed cap something like a toboggan, but made of metal.

Pierre the Oat-thief felt his hair standing up under his hat, but he whistled between his teeth the tune called *Je N'Veux*, just to show that he had no fear. But, to his astonishment, the little creature also began

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to whistle, and its tune was *La Petite Souris Grise*, which is a song about a liar.

"Who are you?" asked Pierre, more by way of getting up his courage than anything else.

"Ob!" was the answer. Then, "What do you say?"

But Pierre had no time to say anything for he was astonished and doubly astonished at Ob's swiftness. For the creature was quicker than a lizard. No sooner had it spoken than it leaped from the middle of the table to the wall, clung there for a moment, then ran up the wall and to the rafters where it began to pull down packets of oats and corn and other hidden stuff. It seemed to know every hiding-place, every secret nook and cranny. Presently, having finished among the rafters, and having littered the floor with what had been so carefully hidden away, it leaped to the wall, then to the floor, and came to a stand not three inches from Pierre's knee. The man tried to push it away with his foot, but it leaped over his boot as lightly as a bird and came down in the place where it had been before. Then Pierre put out a hand to move it off a little, not caring to have so strange a visitor at his knee. But Ob drew back, much as a cat does, not suddenly but easily. And it worried Pierre to see the cat, his only companion, arch its back at the stranger, then scurry away into a far corner. So Pierre held his breath, pretending to look at the fire, but all the while watching Ob, and then, very swiftly, made a grab at Ob's head. But Ob moved the slightest distance and the man grasped empty air. So Pierre pretended that he had reached for the poker. Then he moved his stool so that his back was against the wall, having no fancy to let the creature be where it might get behind him. For a few seconds after that Pierre looked at Ob, and Ob at Pierre, neither moving. Then Ob slid, rather than walked, as one slides on ice, and stopped at a place between Pierre and the door, all the while beckoning with one hand as if it said "Come!", while waving the other in the direction of the door.

"Now what is it?" asked Pierre at last.

"O Pierre! See what I have found hidden away. It is clear that you want to be rich, but you take a sadly wrong way. But you shall be rich for a night, as you have wished. So let us go to the place of riches, you and I."

Now Pierre had no wish to go walking with so strange a companion. More, the night was chill and windy and there was snow in the air. Yet he had no liking to stay in the cabin

with Ob for a partner. To make matters worse, the candle had burned down to its end and the dying flame was leaping high one moment and sinking to a mere glimmer the next, while the candles were not within reach, being in the cupboard where were kept the soap and the bread and a few bags of stolen oats, and to get to the cupboard he would have to pass Ob. And outside a wolf howled. And inside, a bat which had found its way through a chink was fluttering about clumsily. And a gray rat came out of a hole and looked on.

So Pierre took his courage into his hands and began "shooing" and "hissing" pretending to drive the bat away, but really to scare Ob. Next, taking his hat, which he always wore in the house to save trouble finding it, he flung it at Ob in a whirling fashion, so that it skated in the air. But quick as the hat went, Ob was quicker, for he leaped high and landed on the spinning hat, riding while turning like a top, until his eye looked like a bright streak of fire, and Pierre was dizzy at the sight. Nor did the hat fall as it should have done, but, instead, flew around the room three times without touching wall or bench or table, then landed in its proper place on Pierre's head. As for Ob, he leaped from the hat to Pierre's knee, then to the hearth-stone, and began a sing-song which ran:

"The Pierre, who has cheated,
Has lied, and has stole,
Shall see the great treasures
Which lie in Ob's hole."

"And who do you mean by Pierre?" asked the man.

"Who but you?" replied Ob. "Only a hair separates a lazy servant from a thief. And a lazy man is always a cheat. And who but you stole and hid away—"

"Say no more," said Pierre. "All that was a mistake. I put the oats away so that the horses should not overeat, and forgot all about them. And now, by your leave, I'll light another candle and we can talk in comfort."

"Never mind," said Ob. "I can see quite well in the dark. And we need no light to talk."

"But it's no trouble at all," said Pierre. "Besides, I like to make my guests comfortable." Having said that, he got to his feet, but kept his back to the wall and his eyes on Ob, and so started to go sidewise around the room to the cupboard.

"Why do you walk like that?" asked Ob.

"For politeness," said Pierre. "No true man turns his back to a guest."

But no sooner had Pierre reached

the door that led to the outside, than Ob gave a leap, flew across the room and landed on Pierre's back. His little fingers nipped the man's neck.

"A guest wants to see all sides of his host," said Ob. "And do not trouble about a candle. We are going for a walk."

"Yes, yes," said Pierre. "But let us talk a while. It is not often that I have merry guests here."

"Surely Pierre, you are not afraid," said Ob. "Besides, why should we stay in the house when it is dark and cold. You see the fire has gone out. So should we go out. And look at the rats which have come to steal from the thief."

And, sure enough, though the fire had been burning brightly a moment or two before, it was now dead, and there were white ashes where a red glow had been. And about the piles of oats and corn which had been spilled on the floor were rats, a dozen or more of them. What was worse, as Pierre looked, the candle gave a last flicker and went out. Nor did it mend matters for Pierre that Ob was nipping and pinching and hair-pulling, and when the man put up a hand, as he did once or twice, Ob nipped and pinched that.

"You are right," said Pierre, putting as bold a face upon matters as he could, "a walk would be the very thing. Let us go to my neighbor's. It is only a mile away, and there we may have a good supper."

"Two's company: Three's none," said Ob. "You shall go my way. So be brave and follow me. Besides:

"The man who has cheated,
Has lied and has stole,
Shall see the great treasures
Which lie in Ob's hole."

"I do not like your song," said Pierre. "And it is not so easy to be brave when there is no friend to see a man's bravery."

"Am I no friend then?" asked Ob. "Who would make you rich?"

"Better friend I could not wish for," said Pierre. "That is why I want you to know my friend. But wait a while until I light my pipe. I'll get a match from the cupboard shelf."

"No need for match," said Ob. "Show me your pipe."

So Pierre held his pipe, Ob looked at it with his red eye, and, wonder of wonders, there was the tobacco all aglow!

"Now how did that come about?" asked Pierre.

"Easy enough when you have the right kind of eye," answered Ob. "If I looked at you in a certain way, you would burn. Shall I do so to prove it? Or shall we be going?"

"Let us go," said Pierre.

As the man saw by a ray of moonlight, Ob sprang to the wall, lifted the latch, flung open the door, and dropped to the ground in a flash of time. In three seconds more they were both out in the snow. But while Pierre's feet crunched a path, Ob, light as a maple-leaf, ran over the thin crust without breaking it.

And Ob led the way to the stable. There, doing as he was told, Pierre loosed the gray horse and gave it to Ob, and took the black one for his own use. Then off they went, the horses snorting and shaking their heads, their hoofs playing a gay tune, the light snow flying like powder. And as they rode, Ob did all kinds of wonderful tricks, standing on his horse's back, sometimes dancing, sometimes leaning over to whisper in his horse's ear, sometimes singing aloud to both horses:

"This Pierre who has cheated,
And lied, and has stole,
Must see the great treasures,
Which lie in Ob's hole."

And the miles slid by so swiftly, that, in an hour's riding they had gone a distance which would have taken Pierre two days to walk. Nor did they stop until they came to the little sugar-loaf hill in the land beyond Temiscouata Country. And when they did stop, although the whole country-side was snow-covered, the hill where they stood was black and bare. Ob slid from his horse's back and Pierre got to the ground much slower, for he was tired and sore after all that bareback riding.

"Pierre," said Ob, "you wanted to be the richest man in the world, and your wish is to be granted. There is more gold and treasure under where we stand, than anywhere else in the whole wide world."

"Seeing is believing," said Pierre.

"It is," agreed Ob.

Then he bent his head and looked with his fiery eye at the ground, and where his glance fell, there Pierre saw a round spot of light about the size of a plate. Soon that spot began to change. It seemed as though a hole was forming, but a hole different from any Pierre had ever seen, because the sides of it were lighted and things which were deep down were as distinct as those which were near. Pierre could see twisted roots of trees and bushes which seemed to be cut off at the hole, because Ob's eye-beam made the part at which he looked, invisible. So it seemed to the man that he could put his hand down what seemed to be a hole, but was not, and that very thing he tried to do, but drew his hand away sharply when he felt a burning pain as though a hot iron had touched him. After that

he was content with looking. And he saw much. For it was exactly as if a shaft was being sunk, as Ob's eye-beam traveled down and down and down. So Pierre saw earth sharp cut, and stones, and gravel, and veins of

place at first, but which soon turned out to be a cave filled with light, and in it were hundreds and hundreds of creatures like Ob, running and hurrying, most of them carrying bundles or jars or bars. Others were pulling



"YOU WANTED TO BE THE RICHEST MAN IN THE WORLD AND YOUR WISH IS GRANTED!"

trickling water. And as Ob's eye-beam went deeper, Pierre beheld the gleam of mica, and gold-veined rocks, and the black of iron, and the white of limestone, and the sparkle of silver. And still the light-hole went down and down. It cut a way through a lake of pitch, through an oil-pool, through shining coal, through a floor of granite. It passed through an underground river, where fishes swam to the edge, fishes yellow and purple and white and crimson, who looked with great solemn wondering eyes. And still the light-hole went down and down.

Then, lo, and behold! there was what seemed to be a vast empty

and hauling chests which seemed to be heavy, for dozens of Obs were toiling at them. Others were rolling white balls, some small and some large, and Pierre gave a gasp when he saw that the balls were pearls; pearls which, if gossip did not lie, would bring a fortune in the market. He saw something else which made him gasp. For there was the glimmer of gold and the glint of silver. The chests, indeed, were full of both. And the bars which the Obs were carrying were bars of gold. In one place, where was a flashing of colors like a thousand rainbows, was a heap of diamonds. And every moment more Obs came up from passages, to

empty sacks of precious stones. Elsewhere were piles of rubies red as blood drops, emeralds blue and emeralds green, turquoise, pale-blue topaz stones, crimson garnets, sea-green beryls, velvet-blue sapphires, besides other gems of which Pierre did not know the names.

For all the hidden wealth of kings and misers was there. All the pirate treasures from caves and sunken ships was there. There also was all the money which had been laid away and forgotten, and all the precious stuff lost in rivers and in seas, and all the wasted wealth of rich rajahs. There were things rich and rare from north and south and east and west. There were tusks of ivory, and rare silks, and lances of gold, and shields of silver, and jewels cut into the shapes of flowers, and aquamarines that shone like stars, and crystal cups which queens had used, and jeweled robes of blinding brilliancy which had been worn by sultans.

And up from that treasure-cave shot a strange and wonderful light, which spread out fan-shape over the sky like a dazzling, dancing arch of living fire. It was as if all the colors of the gems in the cave had been flung high for the world to see.

"Ha!" said Pierre, "so that is how the northern lights begin, is it? I see. I see. When the Obs are at work and the hole is open, the shine makes the merry dancers of the north. Now that is good indeed to know. I shall be able to find the place again when the northern lights burn. And I'll dig. And I'll get rich digging. And I'll have a coal-mine. And a granite-quarry. And gold and silver. And then the cave with all this wealth."

"Nor need you steal from the horses any more," put in Ob, who had read Pierre's mind. "For all that you see is yours. To-night you are the richest man in the world. Yes You have had your wish. So home with you, and remember that wishes never filled a bag."

Having said that, Ob stepped on the light-hole and began to disappear. Pierre saw his feet vanish, then his body, and thought that his head looked like some queerly shaped mushroom. Next, a lid of blackness covered the hole and Pierre found himself alone on the cold hillside with the two horses, which were shivering after that sweating run and that standing still. A short while the man stood, thinking and wondering and wishing; wishing that he had a tent so that he could stay there; wishing that he had a spade and a pick; wishing that he had a house built over the hole so that he could dig with no one

knowing his business. In the end he took his knife, cut a round slab of earth where the light-hole had been, and put the dirt in his pocket. Then he mounted and rode back with all speed, and, after locking the horses in the stable, went into his cabin.

But what a change was there!

His rough table had become a wonder of gold and ivory, with gold and silver plates and dishes, instead of greasy, tin plates and pannikins. The rough, wood walls he had looked at for so many years wishing they were paper covered, were covered with silken hangings; and on the floor was a carpet as soft as velvet. When he lifted the silk on the wall, he found smooth walls behind, and none of those cracks that he had always wished were filled up. His stool, too, had changed, and was a chair of silk and silver. On the walls were fifty bracket-candlesticks. As for his bed, which had been a narrow bunk of wood, furnished with a red blanket and pillow, that was a couch fit for a king, with silk coverings of pink and amber, and a fine lace pillow. The cupboard, too, was gone, and in its place stood a cabinet of ebony, with shining glass and silver in it. And, to cap everything, the oats which had been thrown down from the loft were heaps of gold-dust.

It was all so wonderful that Pierre took the footstool and carried it to the fireplace. But when he considered, he judged that too fine to sit upon, so went outside and brought in a log of wood and used it for a seat. Then he sat and gazed at the wonder of it all, and thought of the

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"PIERRE BROUGHT IN A LOG OF WOOD AND USED IT FOR A SEAT"

TREASURE-TROVE

By EMILIE BENSON KNIPE and ALDEN ARTHUR KNIPE

Authors of "*The Lucky Sixpence*," "*Beatrice of Denewood*," "*A Continental Dollar*," etc.

SYNOPSIS OF PREVIOUS INSTALMENTS

In the year 1777, Sally Good, fishing in the Delaware River at Trenton, with her brother Nat, ventures out on some rocks and entangles her hook. In recovering her line, she discovers a box, and sends Nat for a boat. While he is still seeking one, a storm arises. When, successful, he finally returns, she is gone. Returning to the wharf, a German, whom Nat takes to be a deserting Hessian, drops into the boat and, at the point of a pistol, makes the boy row him downstream. Sally, having returned home, is wakened at night by strangers who bring a masked girl, Tanis Arms, to place in her care. In the morning little Fern names their visitor Primrose Jones, though Ann, the second sister, suspects her of being a Tory spy. Rid of his German, Nat sleeps in the boat. He is wakened by Hal Carey, the suitor favored for Tanis by her Uncle Rick, who hires him to take him and his servant to Trenton, en route to New York in search of Tanis. When they reach the wharf Sally is there making inquiries about Nat, and she plans to get Hal to carry a letter to a friend of Tanis with an enclosure for Philip, Tanis's fiancé. After the younger ones are a-bed, Sally brings out her mysterious box. Search as they will, they can find no opening. Finally, Tanis suggests a magic word—"Philip"—and a drawer opens. This contains uncut diamonds. Ann, meanwhile, has been spying on them. Tanis has now become a member of the family. Occasionally, they attempt to reopen the box, and

again a drawer opens, but with red stones in it. It too is quickly shut once in a sudden panic. Ann plans to investigate for herself. She feigns a headache, when they are all berrying, and Sally sends her home with Fern, the youngest child. She shuts Fern out, and gets the box out of its secret place, but can make nothing of it. Fern peeps through the window and, when Ann goes away, scrambles in to examine it for herself.

From New York, within the enemy lines, come letters for Tanis. Their chief interest lies in the fact that Philip had left the city on receipt of Tanis's first letter and had not since been heard from. This, to them, implies some mishap. Sally hires a horse and drives to see her mother and enlist her help. Tanis and the little ones go to meet Sally. Ann, left alone again, pursues her study of the box when a man pokes his head in the window. He is one of the original thieves, who have put together the facts that the box was gone from the river and Nat's search there for his sister, and he has come to regain possession of it. Ann tries to hide it, but he takes it from her and escapes.

Sally has put the children in the chaise but while they go to return the nag, Tanis waits by the roadside in the shade of the Ledge with the basketful of country food she has brought. A voice from the hedge warns her not to look around. Her basket is seized, its contents emptied on the ground and her assailant makes off.

CHAPTER XVII DAME GOOD'S INITIAL

NAT, in the meantime, was having a very pleasant afternoon. He had caught a satisfactory mess of fish, had left them safely moored in a pool of water, and feeling his work done, he had wandered out to the end of the wharf, where he stretched himself luxuriously in the sun. There, with his hat pulled down over his eyes, he could laze and dream, inventing all the wonderful things which were to make his fortune. Watching the river, moreover, was always a fascinating pursuit. A stream flowing on its way to the sea provided an endless source of wonder. Where did all the water come from, that, day or night, it never stopped? How little use was made of its great power. If only he knew more, Nat was sure he could find ways of harnessing it and making it work for him. His vagrant mind wandered from this thought to the mill on the Assunpink Pond, which he often visited, and he at once devised a most valuable method for lessening the loss due to flying flour-dust.

His fish and his family alike forgotten, Nat dreamed on. Whether he would have roused from this happy state, half sleep, half waking, in time for the evening meal is doubtful had not a familiar voice sounded on the dock behind him. Almost he sat up at the shock of hearing it, as he thought, addressed to him, when he had hoped never to hear it again.

"I want a boat," it said. "Across

the river my sister is sick. I will pay to go over."

Instantly Nat knew that the words were not meant for him, but for Tom Grubb, who answered promptly: "An I lent you a boat, what proof have I that you would ever return with it? Nay, nay, I'm no country simpleton to be caught with chaff. Get ye gone! We do not let our boats to strangers for hire."

"Across the river I needs must go." "There's the Trenton ferry below the Falls."

"It is far out of my way. This sickness is of an urgency and my sister's house lieth there."

Evidently the man pointed or waved a dirty hand toward the northwest, for Tom Grubb said: "McKonkey's Ferry will do you nicely then. Good day to you."

"Nay," the stranger urged, "so, much time would be lost. A horse is ready just across here. I will pay, and in advance if need be, and not only a boat do I require, but a waterman as well, who can his own bateau bring safely back again."

"Now that," said Tom Grubb, "is quite another pair of shoes. I'll take you over, but I'll see my pay first."

He jumped into his skiff, which was moored beside the wharf, and began to bail out certain water that was loose in its bottom.

The stranger dropped at once into the stern, setting upon the thwart in front of him a basket which he carried.

"Cast off!" he ordered.

Tom Grubb straightened up and looked at the man in amazement.

"Was there ever such a fool?" he exclaimed. "You'd expect to win Chiny with ne'er a sail."

"What mean you?"

Nat detected the well-remembered snarl and was little minded to have Tom Grubb, whom he counted a friend of his, set out in such dangerous company. To be sure, he was a man grown, but once away from the chance of help, he would be at the mercy of the villain's pistols as certainly as Nat himself had been. The lad rolled over on his side to see who was within hearing who might prove useful. No one was in sight, although he could see the smoke from old Simon's pipe drifting out from the shade under the landward end of the dock. In a fight the old man would be worse than useless, and being lame, he could not even run for help. Plainly, then, he and Tom Grubb must manage this between them, their sole advantage lying in the fact that the stranger would not shoot, if he could avoid it, for fear of sounding an alarm. Meanwhile, Tom was speaking and with vast contempt.

"Dost think I paddle this craft with my bare hands, like a beaver?"

His passenger seemed abashed, as he ever did when confronted with his own ignorance.

"I—I never thought of that," he admitted.

"T is small memory you're blest with," Tom sneered. "You've for-

got, too, the shilling for my hire or I misdoubt me."

He had finished his bailing, and, reluctantly, his passenger placed a shilling in his outstretched hand. This Tom, with every intention of insult, first washed, then bit, before he consigned it to his pouch.

Nat, meantime, had risen to his feet and stood uncertain how best to intervene; when Tom, seeing him, and now entirely satisfied to take the trip, seated himself amidship and called to the boy.

"Hey, Nat, pass me my oars, that's a good lad."

To render boats useless to the unauthorized who might wish to appropriate them, it was the universal custom to take the oars out and carry them home, to be safely locked out of danger from thieves. Tom's oars were on the opposite side of the wharf, waiting to go inland with him, and Nat ran to fetch them. Standing on the edge of the dock above the boat, he then deliberately attracted the attention of the passenger seated in its stern.

"You're back this way over soon," he said.

The man half rose in his surprise at seeing the boy, his hand groping for a pistol; and with all his strength Nat swung the oars and brought the butts sharply against the side of the stranger's head. Off balance already, and well nigh stunned by the blow, he toppled, and in a moment landed in the water with a resounding splash.

The shock of this attack was so sudden that even Tom Grubb, a seasoned boatman, with difficulty prevented his boat from capsizing, and looked up at Nat with a disapproving shake of the head.

"Eh, lad," he said; "a jest's a jest, and I'm all for a little innocent fun. It's sure a wash will do no deserting Hessian any hurt; but could you not slip him over gentle like, without nigh cracking his skull and upsetting your own friend into the bargain?"

"Faith, Tom," Nat cried in haste, "it was better to wet you, too, an it was the only way to damp his powder! Don't let him into the skiff—at least, not yet. We must consider what to do with him."

Hurriedly he explained what had befallen him at this man's hands; but still Tom shook his head, even while he kept the sputtering German from getting a leg over the gunwale.

"I don't see that you've told me aught that will stand against the fellow, Nat," he said; "but you go fetch the constable. He'll give us the law of it."

Nothing loth, Nat ran off, to return accompanied by the guardian of law and order who found this case a very hard nut to crack.

"What crime hath the man done against your person and where are your witnesses? That's what I have need to know an I'm to arrest him," he began ponderously. "He hath not murdered ye. That much I can see for myself. Hath he set fire to your hay-ricks?"

"The fellow is heavily armed. He kidnapped me under duress."

"You're safe enough," said the constable, who had no love for the boys of the town. "To my mind you stand guilty of assault, and so I shall maintain."

"Eh, Nat, I told thee thou wert hasty," Tom mourned, the while he kept an eye on the actions of the stranger, who clutched at his boat with the ardor of one who cannot swim a stroke.

"Are foreigners to be allowed to roam the country terrorizing our citizens?" Nat asked, aghast. "I tell you that man doth well to hang tight to the skiff. Around his body there is ironmongery enough to sink a regiment."

"All go armed these troubldous days," the constable averred, and the man in the water, gaining courage as he realized to his amazement that the representative of the law was siding with him, now plucked up spirit to bawl:

"I am a timid man and I have need to be, an I attacked can be in this fine town of Trenton without a redress. Of the chill I shall be like to die, whose only wish was to cross the river to my sick sister."

"As to redress," it was the constable who spoke, "prefer charges and I am bound to listen to you."

"No, no!" the man returned quickly. "'T is for my health I fear. I'll waste no time on him. Let the boy go."

"He'll take no chill to-day," Nat said unfeeling. "The water's fine and warm. Is it then your meaning that this man is to be let free? Not even to be examined into as a suspicious character?"

The constable chuckled. "All travelers are suspicious enduring of the war," he affirmed; "but prisoners cost the state money. I'll not help to fill our jail unless I'm sure the man is a marauder."

"Yet, without my aid, Tom would now be rowing down the river under that man's pistols," Nat cried, exasperated at the futility of battling against such wilful stupidity.

The constable gave no heed to this outburst.

"Help him up into the boat, Tom," he said. "We'll e'en have to take him over to the tavern and dry him off. He's all of a sop."

They watched while Tom assisted the man to get back into the skiff without upsetting it. At once he scrambled into the stern and seated himself there.

"I've no desire here to land again," he said vehemently. "I must across the river to my sick sister get. No matter if I die of chill, go to her I shall."

"You mean he is not to be punished for keeping me from home overnight?" Nat asked, still unable to believe in such a miscarriage of justice.

A wide grin accompanied the constable's reply. "T is not the first time I've heard excuses from a boy who feared to have his jacket tanned," he hinted. "Give Tom his oars."

Nat stamped his foot at his own impotence.

"Remember, Tom," he warned his friend, "I've wetted the powder in his pistols; but this man hath two knives in his belt."

Tom measured his own bulk against his passenger's. "All my weapons are two oars, which thou hast taught me how to use," he said; "for another thing, I can swim, and plainly, from his fright a while back, your friend here can't. Should he make but one move toward me, I'll overset the boat and leave his worship for the fishes."

Convinced that, without firearms against him, Tom would be safe, Nat picked up the oars, only to lay them down again decisively.

"Nay," he said to the constable, "find what excuses for him you may and think as ill of me as you like; but surely you do not hold with stealing."

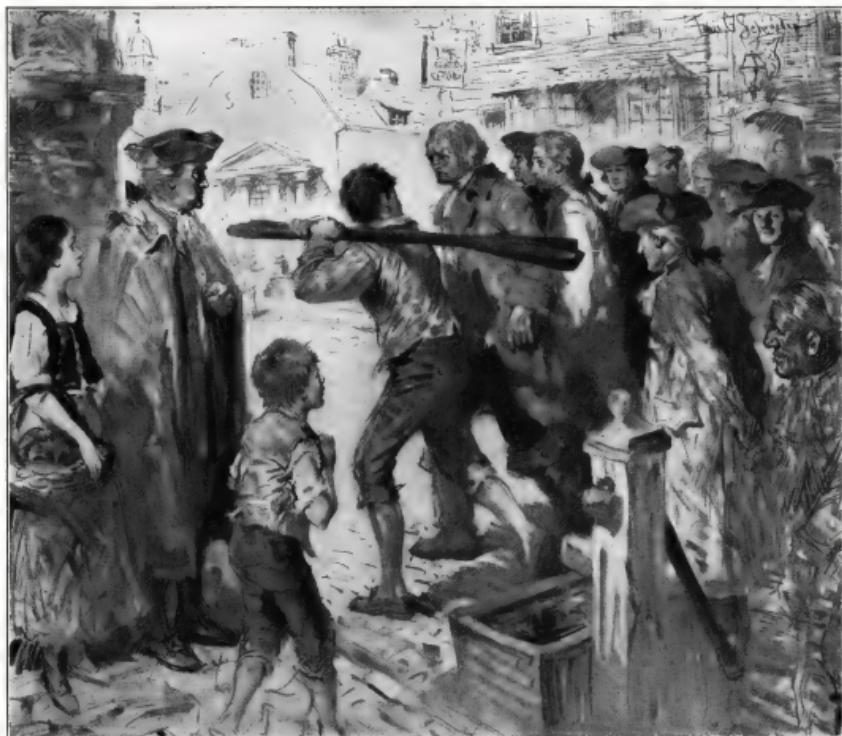
"Stealing, say you?" The constable pricked up his ears. "Bless us and save us, there's none who dare steal hereabouts, now we're rid of the cowardly foreigners."

"That man's a thief!" Nat pointed a steady finger, "and I can prove it."

"What hath he stole, and where is your proof?" The guardian of the peace moved forward menacingly.

"Naught have I stole, and to be set across the river I demand," the man said. "Yourself you call constable, and yet waste time in talking to a bad boy while I shiver." He shivered to prove his point. "Brrrr! I die of the cold. For my death you will be answerable."

He had, however, made a mistake in tactics in reflecting on the greatness of the constable, who asked angrily, "An you are cold, why refuse my offer to escort you to the tavern? Since



"IT QUICKLY BECAME A PROCESSION, THE IDLERS ATTACHING THEMSELVES TO IT TO SEE THE FUN"

you won't come there, still your clack. 'T is clearly my duty to hear this new charge against you." Then, turning to Nat, he went on. "Now, boy, be careful what you say. 'T is dangerous to trifl with the law."

"Aye, sir, that I know." Nat was determined to make the most of this shift in his favor. "See you that basket there? 'T is mine, or I should say my mother's. I made it for her, but 'twas I invented it. Now ask that man if he knows aught peculiar about it. An he can't tell you, I can—and there is still another proof as well."

"There's naught strange about the basket," the man declared. "I bought it, and 't is mine. With it none shall meddle."

"Softly, softly," said the constable, his suspicions at last aroused. "'T is not meddling that is toward, but official inquiry. Speak, lad, what's beyond the ordinary about this basket?"

"'T is made so that the handle, which is double, can separate and slide to either side. Thus the arms can be stretched through and the load carried on the back."

"Now that's a handy trick!" cried Tom, admiringly.

"And what's your second proof?" The constable was frowning portentously.

"In colors on the bottom I wove my mother's initial," Nat said triumphantly.

"Clearly, 't is our duty to examine that basket," the constable declared. "Tom, do you pass it up here."

In an instant the passenger had gripped the basket, his lips drawn back until even his gums were bare.

"On this none shall lay hands!" he shouted.

"Eh, then, the man needs another taste of the oar," Tom drawled.

"You know the way of it, Nat." At this hint, with Nat poised above

him on the wharf, the German saw that he must submit. However, he opened the basket and removed a cloth-wrapped parcel.

"Take it," he snapped. "This is my old waistcoat. To it you'll scarce lay claim."

"Naught but the basket is ours," Nat told him. "Now will you turn it over?"

"What is your mother's name?" the constable asked Nat.

"She's the Widow Good. The best nurse in the town," he answered promptly.

"Aye, that I knew long since. 'T is her given name I'm asking."

"Eliza," said the boy surprised.

"While the letter in this basket is an 'M,'" the constable declared. He and Tom looked at Nat reproachfully, and the German laughed a hateful laugh.

"Now will you believe?" he asked. "My name is Manheim."

CHAPTER XVIII

A NEW ACCUSATION

NAT gave no heed to his enemy, but looked back at Tom and the constable frankly and boyishly.

"To be sure the letter's M," he said, "M stands for Mommy, doesn't it?"

Gravely the two Americans exchanged glances, then nodded their heads understandingly.

"T is so any lad would write down his mother," they agreed.

"Come ye out of there!" The constable spoke with sudden authority.

"I do not budge," the man who had christened himself Manheim averred. "The basket may be his mother's for all I know. Of a girl I bought it, for a good stiff price."

The constable scratched his head. Here were too many complications for his slow brain.

"Who did you buy it from?" the lad demanded. "From my mother?"

For just one minute the stranger hesitated. He had watched the Good household, on and off, for days, and had discovered that Nat was the brother of the girl he held under suspicion. He knew their mother was away, but he wanted to give an answer that would end this catechism and leave him free to go. The basket was a convenience to hide and carry his treasure. It was not a necessity. Once out of Trenton, he could make shift without it, even though, as he well knew, neither horse nor sister were waiting for him across the Delaware.

"Your mother was away. From a girl named Sally I bought it," he said. "If my word you doubt, take it and keep it. T is a cruel hardship to detain me from my sister's deathbed for a boy's foolishness."

"Does he speak truth?" the constable asked, wavering in his mind. He and all the town knew that the widow's oldest daughter was in authority when she was away from home.

"Nay," declared Nat, sturdily. "My mother prized that basket because I made it. Sally would never take it upon herself to sell it, unless, of course, under compulsion of a pistol," he added as an afterthought. Then a remembrance came to him. "When did you buy this?" he demanded, and the man replied, unthinkingly setting the time when he was at the Good cottage.

"At three o'clock to-day."

"Ha, ha!" said Nat. "Now I know he lieth. My sister went this morning to Mr. Penniman's. She cannot have been back so early."

"I would not be particular as to the hour," the so-called Manheim now essayed to correct himself. "The sun

only had I for a guide. Later it may have been. And you may have it back."

Another thought, however, had come to Nat.

"Oh please, sir," he said to the constable. "T is but a short way to our house. I feel sure you would not wish this man to slip through your fingers while there is e'er so small a chance that he hath harmed our Sally, for, see you, of a sudden I remember that she carried thin basket when she left home, filled with sundry comforts for Mom."

"Then 't is possible that she sold it to him?"

"Nay, 't is impossible! Had he said he had it from our mother, I should have wondered; but it was hers to do with as she would. Sally's it never was. Truly we be too well instructed to sell aught that doth not belong to us. This man may have attacked Sally on the Bordentown Road."

The boy's earnestness carried conviction to his listeners and, seeing this, the German's hand sought his belt for a knife. As he drew it, Tom, who had slipped one foot out of his shoe to use the latter as a weapon, brought down the iron-shod heel on the man's right wrist. This for a moment paralyzed that hand, and the knife he held dropped on the footboards, whence Tom picked it up saying:

"T is safer in my hands than in yours. You're apt to come to hurt among us, an you handle cold steel too careless-like. Now out of this boat with you, and do you, constable, take charge of the rest of his armory."

He took the German by one arm, and with the constable at hand to safeguard the other, they soon had the man helpless.

"And now what do we do with him?" the constable asked, tucking pistols and a second long knife under his free arm.

Tom, who had evidently taken command of the situation, at once turned to Nat.

"Lift up the oars, lad," he said. "We go to your house to make inquiries. Should aught of harm have come to little Sally—"

He did not finish his sentence, but marched off briskly with the prisoner.

By the time the procession arrived, all of the small boys and idlers in the streets they passed through attaching themselves to it to see the fun, things at the cottage had almost returned to normal. Tanis and Sally had ceased to wonder over the highwayman who had wanted a basket, but disdained its contents, and poor Ann's con-

fession had been made and in view of her real contrition, her fault had been more or less condoned.

"T is a lesson you should remember all your life, Ann," Sally told her gravely. "I do not dwell on the loss of a valuable treasure. In my heart I never considered it ours, and hoped in one of its drawers to come upon some directions that would enable us to return it to its rightful owner. T is that owner's loss you have now made a certainty, for there is no belief in my mind that this man who seized it away from you came by this strange box honestly."

"Nay," Ann gulped, "he was a prodigious rascal, I'm sure of that, for he faithfully promised not to take it away without leave from you, Sally."

"Did you really believe him?" Tanis asked quickly. She felt the loss more than Sally did, being of a more imaginative disposition and having made numerous very fine plans for her friends, all based upon their possession of the riches in the jewel-casket.

"Nay," Ann answered, "in truth I never trusted him; though he insisted that the box belonged to him, as mayhap it did."

"T is much more like he stole it," Tanis asserted. "Doubtless the man was a rascal, and also the friends he spoke of. Like wolves, such men hunt in packs. Should such a pack kill together, there is a division of the spoils; but should their prey escape for a time to be overtaken later and killed by a solitary wolf, I gravely question whether he stops to call his brothers to the feast before he appeases his hunger."

"You think then that this German means to cheat his comrades?"

"Aye, that I do," replied Tanis, with conviction; "yet it matters not to us. The treasure is lost, both to you and to its original owner."

"Then here 's a good-by to it!" said Sally. "I'll change my dress and wash off some of the dust of the road, when it will be time to think of supper. As to you, Ann, dwell no more on our possible loss of money. The thing for you to ponder on is how you came to stray so far from honor."

That was the last reproach that was addressed to Ann, and she and Tanis were in the little milk-room when Nat, having leaned the oars against the wall, burst into the house.

"Where 's Sal?" he demanded in no uncertain tones.

"Where are the fish for supper? That 's a more urgent question," Tanis returned.

"They're in the river. I remem-
(Continued on page 747)

BEN ~

By ALFRED I. TOOKE



Look . . .

What he did to my book . . . !

The cover is ruined,

The leaves are torn out;

It's battered, and tattered, and scattered about!

Look . . .

What he did to my book !

When . . .

There is no sign of Ben . . .

And he cannot be found,

And there's no sight or sound,

Of that grumbling young, mumbling young, tumbling young hound.

Then Ben . . .

Has been at it again !



OVER THE HURDLES

An Interview with LORD BURGHLEY by ROSS E. KAUFFMAN

ALONG with his good-natured smile, a garden-trowel, which he uses to dig holes at the starting-line, and a much overworked dinner-suit, Cambridge's famed hurdler, David George Brownlow Cecil, Lord Burghley, has carried back to England an enthusiastic impression of American youth in athletics.

The eldest son and heir of the fifth Marquis of Exeter, who led the Light Blue of Cambridge to victory over Yale, Princeton, Pennsylvania, and Penn State, in the 480-yard shuttle relay-race in the thirty-third annual Pennsylvania Relays at Franklin Field, admitted he got more of a "kick" out of this trip than he did on his first invasion, two years ago.

"I think it's marvelous the way your school-boy athletes take to track," said his lordship. "As I sat there in Penn's stadium, after losing my 400-meter hurdles to a likeable chap by the name of Gibson, I could not help but feel that much of America's future Olympic talent was whirling around those same cinders on which I had been beaten."

"They talk about the American 'go-getters' in business life, but my 1927 trip to America has convinced me that there are thousands of youths who are real pluggers. It's a wonderful thing to see boys of ten, twelve, and fourteen years so keyed up over running. I only regret that I did not start earlier. Americans have the mistaken idea that I have been competing in athletics for a long time. I never hurdled seriously until I went to Cambridge University. That is less than four years ago. While attending school in Switzerland, five or six years ago, I thought it would be bully to get some exercise by running and jumping. Most of my schoolmates went in for tennis or golf. Tennis and horseback riding appeal to me, but I don't know of any other sport that is as good for boys as running or hurdling."

"How would you compare American and English school-boy athletics?" Lord Burghley was asked.

Rubbing his hands together, and then adjusting his glasses, the lord and heir of the ancient mansion of

Burghley House by Stamford-Town, replied:

"The American school-boys get considerably more competition than the English lads. I think it is a good idea, unless it is overdone. In England the school-boys do very little inter-

well along in their forties. But it is the love of the sport that keeps the British in active competition so long. The busy American whirl makes college stars hang up their spiked shoes when they have not even reached the quarter century mark.

"Two fellows I find hardest to beat in England to-day are in their thirties, married, and in business. Late in the afternoon, after their work is finished in London, they come out to Cambridge University Field and run. That's how they keep in trim. You don't find many American fellows doing that."

"My advice to American youths, who have any idea of taking up hurdling, is to do a lot of running on the flat first, and think about getting over the barrier later. If I were starting a boy out to take up the sport, I would let him work out at 220 and 440 yards, until he strengthened his legs and had plenty of speed. Then the hurdling should come in easy steps. Form is important, but should not be sacrificed at the expense of speed."

Lord Burghley does not agree with the average American coach or athlete in the idea of training.

"On my two trips to America, I have heard a great deal about the way the school-boys and college athletes train," he said. "We don't go into 'training,' as you call it over here. For instance, I don't believe that eating only certain kinds of food makes you any more apt to win a relay or an individual race than enjoying just any kind of good, plain fare at regular hours."

"Taking my own case: I was kept busy with social and other activities preceding the Penn Relay Carnival. There were luncheons at various clubs and dinner-parties, followed by the theater in the evening. I rarely got the sleep that most athletes require. There were numerous telephone calls, and many requests to autograph this and that, all in a short period of four or five days preceding the carnival, but still I believe I was in good shape on the second day, when we managed to win the shuttle relay-race."



Wide World Photos
LORD BURGHLEY WINNING A HEAT FOR HIS TEAM

school competing, except those who go to Eton and some of the other more prominent institutions, and even then the programs are not large. I think the lads in England are beginning to appreciate more and more that they should start early, if they hope to get anywhere in track or other sports. Only in recent years have they started a set of spring relays. That in itself is patterned after American ideas. I was sorry to miss them this year. I like to see these boys in friendly competition. It does not necessarily imply that a boy who takes up athletics early in his life must stick to them all the time. Athletics should be only a stepping-stone to something bigger and better in one's career. In England, oftentimes, a chap may not enter into athletics until he is in his twenties. Some of our best runners and soccer players, as well as cricketers, have been men

That Lord Burghley does not go in for strict training on the eve of an important race is proved by the extra portion of luncheon he ordered, just two days prior to the opening of the Red-and-Blue Carnival. He was one of the guests of the Penn Athletic Club and, instead of being nervous and showing a lack of appetite, he actually asked for an extra portion of a dish that pleased his fancy.

While not admitting it, Lord Burghley will probably round out his competitive hurdling career in the next Olympic Games at Amsterdam, in the summer of 1928.

"I'm going to be a soldier," his lordship told friends while in this country. "I am to go into the Grenadier Guards, but not to stay, for I'll have to settle down, sooner or later, and manage the estate." Lord Burghley believes England will be able to produce some star athletes in the next Olympics. Many of them are veterans, but a few youths are coming along fast.

"'Doug' Lowe, the present Olympic 800-meters champion, is still in good shape," he said. "And that means that Otto Peltzer, the German sensation, will have his hands full

next year. If you recall, Lowe was the one who forced the German star to break Ted Meredith's half-mile record last year. Lowe ran in the Penn relays, two years ago. Our Cambridge team failed to win, but his work was brilliant. Don't overlook that chap Stallard, either. I actually believe the former Cambridge middle-distance man will be able to beat Nurmi in the 1500 meters at Amsterdam. I should n't be surprised if the next Olympics furnished some of the finest competition we have ever seen."

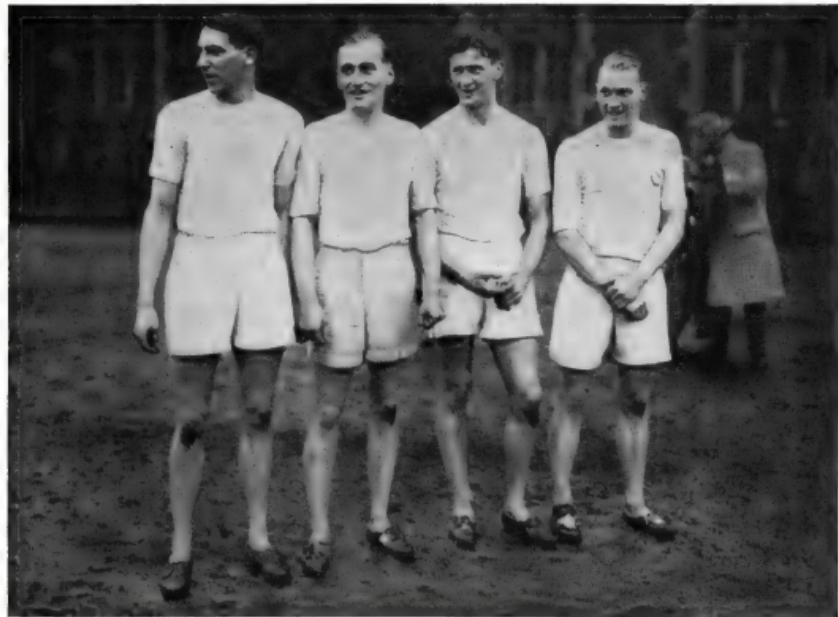
"I saw a lot of first-class American talent on my trip, including those sprinters, Scholz, Locke, and Russell; Hester, of Michigan; Cox of Penn State; and Rue of Ohio State, who staged that remarkable mile struggle in the mud; Carr, Yale's pole-vaulter; Burg, the Chicago high-jumper, and a host of others."

Lord Burghley's "buddy" in his recent American invasion was George C. Weightman-Smith, the South African hurdler and javelin thrower, who has done so well at Cambridge this year.

The South African and Lord Burghley were inseparable on all social

functions. At the theater and during leisure hours they were arm in arm. The former highly prizes the copy of the popular American song hit that he heard for the first time on his trip here. Members of the Cambridge team were invited to luncheon at one of Philadelphia's leading department stores. They were shown all through the twelve-story building. Art, literature, and the mammoth bell atop the roof, built in Croydon, England, were all pointed out. The athletes "yessed" their guides until they were almost weary, but finally the Cambridge boys stopped in front of the big pipe-organ. A classical piece was being played. Then followed hymn, and national airs. Finally Weightman-Smith asked: "Pardon me, but can the organist play 'Black Bottom'? I've heard a lot about it." A hurried trip was made to the music department. The young girl rolled off the American hit on the giant organ, and one of the officials of the store promptly had the copy wrapped and presented to the South African athlete with his compliments.

Lord Burghley smiled through it all. "You Americans always do the right thing at the right time," he said.



Wide World Photos

THE CAMBRIDGE TEAM, WINNERS OF THE 480-YARD SHUTTLE RELAY-RACE AT FRANKLIN FIELD. LEFT TO RIGHT: G. C. WEIGHTMAN-SMITH, LORD BURGHLEY, T. C. LIVINGSTONE-LEARMONTH, AND H. P. BOWLER.

THE STUBBORN STARRATTS

By A. MAY HOLADAY

Author of "*On the Sidelines*"

IT was late afternoon—and sultry. The prune harvest was in full swing, Dick Starratt saw, as hesitatingly he crossed the dry-yard at the foot-hill ranch of his nearest neighbor, "old Ben" Wagner. His wistful gaze followed the quick, sure movements of these experienced workers, and he realized anew the great handicap under which he had been laboring with his own makeshift equipment and crew.

But that was n't all. Since a year ago, when he and his sister Della suddenly were thrown upon their own resources, they had struggled constantly against a baffling antagonism that aroused their fighting blood. Suspicion pointed strongly toward old Ben; and now, had the need been less urgent, Dick's pride would have rebelled flatly against his errand. But—he must think of Della.

Already the acknowledged dictator of Pine Ridge had spied his visitor and hustled toward him. He reminded Dick of a russet apple—withered and wrinkled and ready to fall.

"Can't take much time, Dick," he cautioned. "Figgered you could n't manage that prune crop alone, fer all your highfalutin, booky notions. You stuck-up city folks kin talk big, but when it comes to doin'— Need trays, eh? An' boxes, I'll bet! Now when I was runnin' the place fer your father—"

The mocking glitter in his eyes gave Dick a creepy feeling, but he shook it off. "That time has passed. I need trays because last night a hundred of mine mysteriously disappeared."

"You don't say! Well, you've got nerve, askin' help after turnin' down my offer. I'll harvest your prunes—but on my own terms, remember."

Dick Starratt's slender brown hands trembled with the wrath that shook his whole tired body. "Terms! That word's a joke. Like a spider, you're trying to entangle all the little fellows on the ridge." Then prudently he choked back a rush of words. "Wagner, my father treated you well, yet you've turned all his neighbors against me. Why can't you be man enough to stop hindering, even if you won't help me? Renting your extra trays and boxes to a neighbor is good business. Will you do it—or won't you?"

At the boy's mention of his father, old Ben's pale eyes had wavered.

Then his chin set stubbornly. "No!" he exploded violently, "not a tray do you git!"

Dick turned away. "All right. But I'm beginning to believe I really inherited the Starratt grit. I'll harvest my crop—somehow! It's the game fish, you know, that can swim upstream."

"A game fish," the old man reminded him caustically, "fights his own battles."

The boy swung briskly down the dusty mountain road, his bronzed face grimly determined in spite of the failure of his mission. Soon the sight of his own heavily laden trees down the slope cheered him. And straightway his long, desperate struggle against frost, red spiders, and worn-out soil faded away, while in its stead came a flood of pride and renewed courage to forge ahead in spite of all obstacles. This prune crop meant a final year at college for himself and Del. And after that, he'd come back and put Rocky Acres—their somewhat doubtful legacy—on a splendidly paying basis. And all Pine Ridge could n't stop him!

But his pace slackened as he neared his own orchard and saw his prune pickers stretched idly upon the dusty ground, talking and smoking. He could fairly feel their hostile glances. Had old Ben won over even these strangers? They were a hard lot, but the best that could be secured from the employment agency in the city—Dick's last resort when his crafty old neighbor's contracts for drying the crops on the small, unequipped foot-hill orchards were changed to include the services of all the local families during prune harvest.

Hank, the leader of the gang, now stepped forward, his appearance largely matter of whiskers and dirt and sticky prune-juice. "Prunes too thin and scattered," he grumbled sourly. "If you'd club the trees—"

"That will come the last time over the orchard," Dick reminded him patiently.

"Did n't know you picked 'em up off the ground or I'd never 'a' come," Hank's fat, weak-faced pal muttered fretfully, pounding his cramped leg-muscles. "Takes an hour to fill a box."

"Maybe that's the reason you help out with clouds and leaves," Dick came back good-naturedly. "Quitting-time, boys!"

It was quite dusk by the time the day's picking was checked up in his time-book and the harassed young employer ready to return to the house. He turned down the zigzag path that led past the bunk-house—a shed that temporarily housed the orchard help and their camping outfit.

Hearing low voices, as of men in intimate planning, Dick stopped short. Two figures—one thin and withered, the other young and vigorous—were moving toward a white-faced pony tied outside the orchard fence. The boy's eyes narrowed. So that was old Wagner's next move—striking through Hank. Now there would be another source of worry.

As he entered the shabby little farm-house, Dick called cheerily to his sister: "Del—oh, Del!" How could he tell her?—yet he must. "Our neighbor prizes his trays too highly to rent them to incompetents," he said lightly. "But, Del, we're not licked yet! We've enough to run us a day or two, and I'll phone for tray and box material from the box factory. They'll ship it 'knocked down' tomorrow on the narrow gage to the siding."

"Guess I can drive a few nails myself, even if I am 'one o' them stuck-up, stubborn Starratts,'" Della mimicked, with a rueful glance at her work-roughened fingers. "What did old Ben say?"

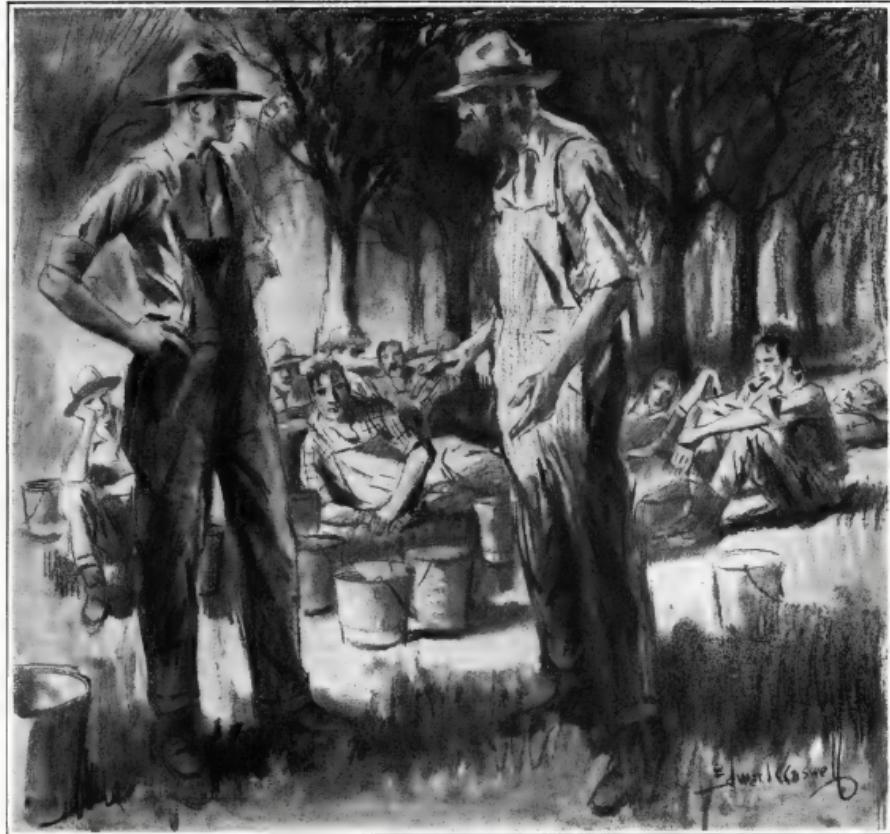
"Not a tray do you git!" Dick chuckled. "And the old scoundrel has hundreds of trays that won't be used this year."

Della's dark eyes glowed with suspicion. "Our missing trays—that old mischief-maker!"

Her brother nodded grimly. "But where is our proof? Our trays were just like his. He's been talking to Hank, too. But if I fire Hank, the entire crew will walk out on me."

"Oh, Dick! That ignorant old mountaineer will make us fail so that he can take back the ranch. I'll just put on overalls and show him I can pick up those prunes!"

Dick's throat choked. "Twenty acres? Hardly. And I'd lose a perfectly good little cook. We'll manage somehow, Del. If that old buzzard had n't tied up with contracts all the young bearing orchards on the ridge, we could get plenty of local help. There's the Kellys—twelve of 'em!" the boy sighed enviously.



"PRUNES TOO THIN AND SCATTERED," HANK GRUMBLED SOURLY. "IF YOU'D CLUB THE TREES..."

Della changed the subject abruptly. "Better 'phone down right away for the tray material, Dick, while I finish supper."

It was in this same courageous spirit that the young Starratts had challenged every obstacle—even the baffling antagonism of the hill folk. Farming by government bulletins and books from the university was unknown on Pine Ridge, and thus was resented on the old place which the elder Starratt, for years, had leased on shares to old Ben Wagner, whose freely given advice and disagreeable presence now were unnecessary to the independent younger generation.

With so much at stake, Dick Starratt was worried that night, and wakeful. Near daybreak he was aroused by strange, but unmistakable, sounds.

He tore out through the orchard, seething with rage.

"Hey, there! You fellows—help!" he shouted.

As the men tumbled, yawning, from the bunk-house—Hank apparently the sleepiest of them all—a strange sight met their eyes—grunting, rooting pigs, greedily crunching the prunes that had not already been trampled into the soft ground!

With great difficulty the unwelcome visitors were forced out by the way they had come. Dick made no accusations as he mended the clean-cut wires of his strong hog-tight fence. Suspicion was one thing—proof quite another. But it was with a sickening sense of helpless rage that he viewed the destruction.

"They're Wagner's, all right!" he

muttered grimly. "But I can't prove who cut the fence wires. The things I'd like to do to that little weasel—But I'll fight fair."

Dick Starratt will never forget that grilling day's work at the antiquated prune dipper: lifting heavy boxes of ripe fruit up into the wire basket; immersing that in the vat of boiling lye-water to "check" the skins; raising the basket with a hand lever that seemed to jerk his throbbing arms from their aching sockets; spreading the dipped prunes on shallow trays to be placed in orderly rows across the dry-yard. And thus passed the strenuous days that began at daylight and ended when darkness finally overtook them.

Nothing further was seen of old Ben Wagner and his white-faced pony, and

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Dick had begun to relax his vigilance. Then, that very night, he heard a soft rustle, as of some one skulking past his open window. Grasping his flashlight, he crept outside, listening alertly. The night was black, but his straining eyes soon made out familiar objects. Was that a shadow? No, it moved stealthily, as if to lure him on.

"Queer!" Dick muttered, baffled.

Then his heart leaped at sight of a creeping yellow flame hungrily licking the corner of a stack of empty trays. The wood was very dry—a wind was blowing—the only water available the lye-water in the vat! Dick grabbed two of the picking buckets, and by strenuous effort extinguished the flames that in a few moments would have wiped out the fruit-shed with all the dried prunes stored there—his whole year's work! Again he had arrested the hidden menace that persistently shadowed him.

During the remainder of the night Dick kept anxious watch, dreading what daylight would reveal. And his worst fears were confirmed as he approached the prune dipper. The hand lever that must hoist the wire basket was broken off short!

Dick pondered. Was the fire only a clever ruse to draw his attention from the dipper? Again he had no proof—only a maze of suspicion and a baffled sense of defeat.

Della's eager voice aroused him. "Dick! Look who's here! Jake—and all the Kelly stair-steps—bless 'em!"

Jake Kelly—nineteen and in the two-hundred-pound class—had flaming red hair, a bushy chuckle, and fists that were the envy of all the foot-hill region. "Howdy, Mister Starratt," he began bashfully. "Here's Pa an' Ma an' the kids. If you've got any prunes you want picked up—"

"Millions!" laughed Dick, in sheer relief. "We are neighbors, Jake, so cut out the 'Mister.' But—how—I thought Wagner's contracts—"

Pa Kelly chuckled. "Our orchard ain't bearin' yet, so he couldn't make us sign up. Our fall truck is all planted, an'—"

"Anyways," Jake cut in frankly, "we're tired o' the way he's houndin' you."

All Dick Starratt's former courage came back with a rush. "You're a life-saver, Jake! I feel equal to anything. What do you think of this lever?"

Jake's huge fingers expertly investigated the break. "Looks as if—"

"Sh!" cautioned little Pa Kelly, as Hank approached the shed, his sharp glance turned curiously toward the Kelly "stair-steps."

"Morning, Hank!" his young em-

ployer greeted gaily. "This is Jake Kelly, my new foreman. Anything you pickers want, just ask him."

Jake looked incredulous, then his freckled face reddened.

Hank eyed the huge bulk doubtfully, half turned away, then bolstered up his courage.

"We want a raise of five cents a box for pickin', an' four bits a day more for the fellows doin' yard work. Old Wagner says—"

"You git your gang out to the orchard," Jake advised meaningfully, "an' the Kellys'll show you tellers how to pick up prunes."

"These loafers are all primed to walk out on you," Jake continued, as Hank and Pa Kelly moved away. "What's Wagner got agin you?"

Dick's expression became grave. "I wish I knew! What move would you suggest?"

The big fellow scratched his red head thoughtfully. "Well, somehow you've got to keep that lazy crew till the pickin's done. Then you an' Pa an' me can do the dippin'. I can't fix this hand lever—an' what's more, Hank knows it!"

Dick's lips drew into a firm line. "Old Wagner planned to get me down to the city for a day with this repair work; but he hadn't counted on you, Jake, you catch the early train, get a new lever, and return by the afternoon local. Hank can't engineer a walkout until they get their money. Luckily, I contracted to pay after the work is entirely finished." He drew out his check-book. "Better bring the men's wages back with you, Jake. This will clean out my bank-account. You don't know what saving this first prune crop means to me—and to Della!"

The other nodded soberly. "Mebby I don't know," he admitted, "but my imagination's a hum-dinger."

Dick Starratt whistled gaily at his work that morning. What a relief to feel that he could depend upon some one! It made the whole world seem different. Then suddenly he sensed an ominous silence in the orchard. Puzzled, he strode toward the open door of the bunk-house. The men were throwing their belongings into their blankets and rolling them up.

"Why—what's the trouble?" he questioned.

As usual, Hank was the spokesman. "When we don't get what we want, we quit—see? An' you just try an' stop us!" he challenged.

Dick's thoughts were doing a hurdle-race. If only big Jake were there! Alone, he could do nothing. The prunes—an idea came.

"Too bad you'll miss the chicken dinner at the house to-day," he re-

marked casually, "my sister's treat for the campers—fried chicken and hot biscuits and—er—cherry pie! About wages, too. Your contract reads, 'when the job is finished.'"

But he was talking to empty air. At the words, "fried chicken," the loiterers had grabbed their buckets and scattered energetically over the orchard. Hank could offer no argument to balance the lure of real food.

"Safe for another day!" Dick muttered in relief. "But, gosh! What will Del say?"

That chicken dinner, prepared by Della and Ma Kelly, and served at improvised board tables on the cool porch, will live long in the memories of the hungry prune-pickers, who devoured it down to the last crumb. The delicious food and Della's friendliness and hospitality somehow put a different face on the matter. Consciences long dormant began to squirm uncomfortably—especially Hank's, as he stopped, puzzled, beside the empty chicken-yard.

"They've killed their last chicken for the likes o' you!" Pa Kelly pointed out emphatically. "Imagine old Ben a-doin' that!"

"Well, I'll be shot at!" Hank muttered hoarsely.

"You may be, at that, if old Ben finds you still on the job," Dick warned quietly, "so I'll save your face by firing you right now. Tell your friend Wagner that we're still on the job and going strong."

Dick's heart thumped madly. Why had he yielded to this foolish impulse? He had counted too much on the men. But no one followed Hank as he slunk away. And no one saw him as, at a safe distance, he sank down by the fence and laughed until he could laugh no more, chuckling, "I'll bet on them Starrants. I've done as I promised old Ben, but he's licked, fer sure!"

"Come on, fellows," Dick urged briskly. "With that trouble-maker out of the way, we ought to finish up the orchard in a couple of days." Anxiously he awaited the response.

"I'll stick if it kills me!" vowed the fat youth, adjusting his knee-pads.

"Me, too!" promised the weak-faced recipient of all Hank's former suggestions. "A couple o' kids," he muttered, "and their last chicken!"

It was long after train-time, but Jake had not come up from the little mountain station. Dick Starratt's face held a worried look. The pay-roll! Had Jake, too, failed him?

"Shucks!" he chided himself. "My nerves are getting jumpy."

Crossing the driveway he glanced uneasily down the long rows—then

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"WHAT'S THAT YOU'RE CRAMMING AWAY IN YOUR WALLET?"

THE SHADOW ON THE DIAL

By AUGUSTA HUIELL SEAMAN

Author of "The Boarded-up House," "The Secret of Tate's Beach," etc.

CHAPTER V

RONNY GETS DOWN TO BRASS TACKS

IT was late that afternoon when the three left Pettigrew's Folly. It had not been a particularly profitable afternoon, for after the disclosure of Grandma Fletcher's relationship to old Judge Cotesworth, Ronny had learned nothing new, though they had spent several hours in the tiny secret room and had gone over the old paper very carefully.

"Did your grandma say anything more about why the judge didn't leave this place to her father?" he questioned a number of times. "Did he cut him off from everything, the way they do sometimes?"

"No," answered Naomi, "Grandma says the judge left his only son two or

three other large plantations he had, farther north, over toward Orangeburg. But this was the pick of them all and had always been left to the

SYNOPSIS OF PREVIOUS INSTALMENTS

THE Speers, Father, Ronny, and Leila, come to Burton, on the Carolina coast in search of a winter home and for Ronny's health. Mr. Speer, considering the purchase of an old plantation known as "Pettigrew's Folly." This house has a secret room and a curious sun-dial, the mystery of which Enid and Naomi Fletcher, granddaughters of the Speers' hostess, have long tried to solve. Ronny shows a keen interest in the old mansion and the girls intrust him with its story. With his aid they continue their investigations of the mystery-room in the old mansion, and also their inspection of the sun-dial.

eldest son. It was a terrible disappointment to her father. He had the other property, it is true, and was well enough off, but he loved Cotesworth Hall better than any spot on earth. Then the war came, and, of course, he lost his life in it and all his plantations went too, and Grandma was left almost penniless till she married and came back to live where she is now. That was Grandpa Fletcher's property. She has enough to live on, but she takes boarders once in a while mainly because she's lonely and likes the company. But of course, Pettigrew's Folly should have been hers except for the strange hitch in things that nobody was ever able to explain. Grandma does n't seem to like to talk about it very much."

"Well," declared Ronny, at length,

scratching his head meditatively, "tell you what. Suppose we take this old paper out of here and back to the house with us. It 'll bear some more studying and I 'd like to give it the once-over more carefully than I 've done yet. Would you trust me with it? I got a dandy wallet here with a strap compartment that it 'll fit into fine and I 'll be awfully careful of it."

The girls agreed that there could be no harm in that proceeding, and Ronny hid the paper carefully in an imposing wallet of ample proportions.

"I 'll get down to brass tacks on this," he commented, "while you folks are off at school, whenever I can get away from Leila. Never do to let her in on this!"

Leila had quite recovered from her illness when they reached home, and there was no further chance that evening to discuss their mystery. But Ronny had laid dark and desperate plans to get away by himself next morning, and by virtue of the very nature of his scheme he was able to succeed. For he had elected to go fishing, and if there was one occupation his sister detested more than any other, fishing took the lead. So while Miss Leila Speer prepared to worry through another lonely morning with the inevitable movie magazine (now grown very stale and no others to be obtained in the town!), Ronny was hiking over the little foot-bridge across Thatcher's Cove to the town, where he was prepared to purchase a fishing outfit and bait, if such were available, and betake himself to the steamer-landing at the foot of Calhoun Street where it was rumored the best fishing was to be obtained.

He shook his head dolefully over the possibilities the two or three general stores of the town offered. "Dead!" he muttered, surveying their assortments, which ranged anywhere from canned goods to crockery, interspersed with patent medicines, fresh meat, farming implements, and candy. "Asleep at the switch!"

"What did you say?" inquired old Mr. Tripp, benevolently, over his glasses.

"I 'd just like to get a fishing-pole, if you have such a thing," explained Ronny, wearily.

"And how do you like Burton?" demanded Mr. Tripp, as he picked out a pole from an assortment over in one corner. And without waiting for a reply to that he went on: "Fish bitin' splendid to-day down off the dock. Caught three myself this mornin'. And it 's right early for 'em too."

Loaded with the necessary paraphernalia, Ronny rambled down the

main street, which was nothing but a white oyster-shell road with no sidewalks, past the old church at the water's edge, which had been shelled during the Civil War, and on to the landing at the foot of the street. He located himself on the end of the wharf with his feet hanging over the edge, set up his pole in proper fashion, cast his line, and then laid the pole down by his side and pulled out his wallet. There was not a soul in sight. If all the inhabitants of the town had been asleep in their beds, the place could not have been more deserted. And in the safety of this solitude, with the blue water under his feet and the bluer sky overhead and his only company a few white herons wading on the marsh islands a short distance away, Ronny proceeded to work out his problem. On another bit of paper, with a pocket pencil, he began making copious notes, and was only recalled to the memory of his new fishing-rod by seeing it almost disappear over the edge of the wharf.

When he had hauled it in and unhooked a sizable bass from the line, he laid the pole aside as irrelevant to his present occupation and went back to his notes. "Golly!" he murmured to himself once or twice. "Golly! I have an idea!" And so the long, lazy morning wore away. He was recalled to present affairs about noon-time by a sharp voice at his shoulder.

"Well, for goodness' sake!" exclaimed Miss Leila Speer, bending over to obtain a better view of his notes. "Is this the way you do when you fish? What 's that you 're cramming away in your wallet?"

"It 's no affair of yours!" retorted Ronny, angrily, concealing his precious papers in his pocket. "I should think you 'd be ashamed of yourself to come sneaking along like that just to annoy a feller. What you here for, anyway?"

"Dinner 's ready and Mrs. Fletcher sent me to find you," returned Leila, stiffly. "And if you think I want to know about any of your silly old affairs, you 're mistaken. I 'm lonesome and blue and I can't even speak to you without you snap my head off. I 'm sick of it!" And Ronny noted, to his unbound astonishment, that there were actual tears in his sister's eyes as she turned and walked away. The sight was too much for his naturally amiable disposition.

"Aw, say, Leila, cut out the sob stuff! I didn't mean to be grouchy!" he exclaimed penitently. And grabbing up his rod and his one trophy, he ran up to her and tucked her hand, which had been whisking away some surreptitious tears, under his arm.

"You 're just downright mean to me," she continued, as they turned toward the lane that led over the foot-bridge. "You go off with those girls all the time and leave me alone all day long and I 'm so miserable I could just die—or something! There 's nothing to do in this awful place, and—and I like to be with folks just as much as—anybody." Tears threatened again, and this time Ronny did not scoff at them. Truth to tell, he was not only surprised, but a trifling conscience-stricken beside. They had rather pointedly deserted poor Leila, whose misfortune was that she had little within her own mind to entertain her, when movies and shopping and like diversions failed. Perhaps it was n't her fault, reflected Ronny. She was a girl, and not all girls were as resourceful and happy and entertaining as Naomi and Enid. Leila was n't a bad sort when she forgot trying to pose as a young lady and acted like a human being. It was only lately that she 'd begun to act so 'uppy.' Perhaps if they gave her a chance—A sudden thought occurred to him, and in his penitent desire to put it into words, he turned to his sister.

"Look here," he began, stopping short in the middle of the foot-bridge. "The girls and I have a secret—a very important secret. It is n't mine—t's theirs. And yet it 's some mine too, or all of ours, especially if we 're going to have that Pettigrew place. We have n't let you in, because you didn't seem to care a tap about being with us—or we 'd have taken you in to begin with. It 's something deep, I can tell you, and it 's got me guessin'. But I can't see you bein' lonesome and blue, and if you'd like to join us and help dope it out, I 'll talk it over with the girls and see if they want to take you in. How about it? It 's their secret, really, or I 'd tell you the whole thing right now."

Leila's eyes fairly sparkled and a new expression of interest dawned in her usually rather sullen face. "Will you, really?" she cried. "I would n't tell those girls, but I 've been just crazy to be in this with you. I knew there was something you were all deep in, but I would n't have asked them about it—no, not if I 'd been ten times lonesomer than I have. But if you let me into it, they can't say a word."

"Now see here," said Ronny, sternly, "just can all that line of talk! If you come into this at all, it 's only with the consent of the whole outfit. I ain't got anything to do with it, personally. Naomi and Enid 'll take you in, I think, because they 're good



"THEY RETURNED THE KEY TO COOSAW, AND SCRAMBLED ON THEIR MOUNTS"

sports and really want to be friends with you if you'll only let 'em. But they won't stand for any highty-tighty stuff—and neither will I."

"All right—all right, I say!" Leila exclaimed hastily. "I'll do anything you say as long as I don't have to be left out in the cold any more. I can't bear that any longer." And she laid an appealing hand on his arm.

"Very well, then," conceded her brother. "Just you lie low and try to act nice 'n human and I'll see the girls about it this afternoon. Don't you try to butt in just yet, but let me work it. 'T won't hurt you to stand one more afternoon by yourself while I talk it over with them."

And to this Miss Leila agreed with quite surprising alacrity. So meek and humble indeed was her demeanor for the rest of the day that Ronny was heard to mumble to himself:

"Gee whiz! Who'd have thought it? She must've been hard hit, poor kid!"

It was with unmitigated surprise that Enid and Naomi, that afternoon, heard Ronny quietly propose to them, right before his sister, that they saddle their mounts and ride over to Pettigrew's Folly. And they fairly lost their breath when Miss Leila, instead of objecting, or insisting on joining the expedition, as quietly remarked that she expected to go out with Grandma Fletcher and make a call on a neighbor in the village while they were away. Even the twinkle in Ronny's eye as she made the announcement was a mystery, and it was not till they were cantering away through the pine-barrens that he chose to enlighten them, rehearsing the whole episode of the morning and putting his proposition before them fair and squarely.

"Why, of course we'll take her in!" cried Naomi, heartily. "It's a shame that she's been so lonesome; but she didn't seem to want to be with us before. Let's go right back and get her!"

"No, that won't work to-day," objected Ronny. "We've got to find another mount for her or she'll have to ride behind me on Hannah. And I've been doping out one or two important things I want to talk over with you right away. Anyhow, she's gone calling. Let's get on to the mansion and tamp down a few things I'm keen to find out."

When they had ascended to the secret room and opened the trunk once more, Ronny suggested that they take the old Bible and go into the larger room, where they could have a better light. And there on the bare floor around the weighty old volume

the three established themselves. Ronny drew his papers from his wallet and began impressively:

"Now I don't set up to be any *Sherlock Holmes*, but I always liked the way that feller went at things and this morning I started out to work it up as I thought he might have done it. There are some things in this that just hit you in the face, sort of, they're just so plain askin' to be puzzled out. The first one is this—Who's this R he speaks of in the sentence, 'If it should prove that R—?' If we can find that out, we've got somewhere."

"Well, of course we can't tell positively," answered Enid, "but it has always seemed rather likely to us that he meant his own son. That son's name was Randolph. We can't be absolutely certain, for a good many people's names begin with R, but—"

"No need of sayin' any more!" cried Ronny, delightedly. "If I'd known that before, it would have been simpler. Nail it is that it's Randolph and we'll proceed from there. The old judge is tryin' to prove something about this Randolph, and it's got something to do with the sun-dial. Wonder why he didn't finish that sentence? Do you know what I think? I think that the old feller was one of those people that were always scribbling things on bits of paper—scribbling their thoughts and any old thing that comes into their heads. There are people like that. I sort of do it myself quite often. Find myself scribbling things I hadn't intended to at all. I think the judge was like that. Perhaps he drew this picture of the dial and used to sit and stare at it quite often, and then he'd get to scribbling his thoughts about it. When he was scribbling that last one, something told him he'd better stop, I figure. That's why it's cut short."

"Oh!" exclaimed Enid, pink-cheeked with excitement, "I do believe you're right."

"Suffering cats! Is that so—I mean about those old books being all scribbled up?" cried Ronny, springing to his feet. "Then the very next thing we've got to do is go all through them, for it just might be that he'd scribbled something else somewhere that would give us a clue!"

CHAPTER VI

LEILA PRODUCES SOME SURPRISES OF HER OWN

THE afternoon waned and shadows began to creep into the attic room of Pettigrew's Folly finding the three still bent, each over a dusty law-book or ancient ledger once belonging to

old Judge Cotesworth. Finally Naomi glanced up.

"Good gracious! Look at the time!" she exclaimed, staring at her little wrist-watch. "It's half past five and Grandma will think we're all hopelessly lost. It's getting dark too. Let's put these things away and get right back."

They hustled the musty old books back into their hiding-place, locked up the house, returned the key to Coosaw, and scrambled on their mounts.

"Did you come across anything?" demanded Enid, of the others, as they cantered through the pine-barrens in the waning light of sunset. "I did n't. All the books I went through had nothing on their margins but dots and serials and words that meant nothing whatever."

"I had n't much better luck, either," acknowledged Naomi. "I went carefully through a big old account-book and it was all about buying supplies for the household and sometimes buying or selling a slave or some horses or something like that. Just one item at the first would have been of the least interest to us. It spoke of paying twenty dollars to a Thaddeus Colecroft for 'setting up and properly adjusting sun-dial.' And it was dated somewhere back in 1834, I think. But that does n't get us anywhere."

"Well, I had better luck than that," acknowledged Ronny, and added, somewhat surprisingly, "but if you don't mind, I'd rather not explain what it was just this minute—not until I have time to look over it again and think about it. It was—queer!"

With their interest roused to the highest pitch, the girls had much ado not to besiege him with further questions, but they managed courteously to forbear, since he had asked them to do so. They found supper ready on their return and Leila in an amiable and unquisitive frame of mind. After supper, Grandma Fletcher announced that she was going to run over and spend the evening with her next-door neighbor down the road, and asked the four if they minded being left alone for a couple of hours. As this fitted in excellently with their own plans, they assured her that they would not, and, after she had gone, settled down cozily about the open fire. And by the light of the blazing logs behind the high old brass fender, they initiated Leila into the mystery from which she had heretofore been shut out.

By unspoken, but common, consent, they let Ronny do most of the talking. And in his fascinating jar-

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From the painting by F. C. Vohn. Reproduced by courtesy of The Continental Insurance Company
"I HAVE BUT THIS INSTANT COMMENCED TO FIGHT"

BOYS WITH JOHN PAUL JONES

By DON C. SEITZ

SEPTEMBER 23, 1779, remains the most glorious date in the annals of the American Navy. On that day, John Paul Jones, in command of a converted merchant vessel, the *Bonhomme Richard*, named after Benjamin Franklin's *Poor Richard* of his Almanac, defeated the British frigate, *Serapis*, Captain Richard Pearson, off Flamborough Head, near Scarborough, in the North Sea.

The affray took place in bright moonlight, the audacious Americans having previously flaunted their starry flag in the very eyes of Britain, landing on her shores and making themselves quite at home.

It is not so much the tale of the great sea-fight that is here told, but of the share boys had in the fighting. Boys do most of the battling in wars on land and sea. The lads of the Revolution were as brave as those who crossed the water in the great World War, though they numbered but hundreds against the millions of 1917-1918.

John Paul Jones himself was by no means venerable. His crew had been picked in French ports—strays from privateersmen, seamen from block-

aded merchant-ships, and a few skilled man-o'-war's men. The marines were Frenchmen under a French commander. The ship was old and never built for war. Her guns were poorly placed and she was too high above the water to meet the fire from the upper decks of the low-lying *Serapis*. There were not ports enough to emplace the guns on the *Richard's* lower decks, so Jones blew away her timbers with round shot, and fired at the enemy through the shattered side. Water poured in the strained seams, and the *Serapis* was pounding her to bits. Some of the seamen were frightened and essayed to haul down the flag, when they were driven to their posts by the captain, sword in hand. Victory looked far away. And here is where the boys came in. There were three on the ship: John Mayrant, from Charleston, South Carolina, of French Huguenot descent; James Fanning, from Stonington, Connecticut; and George Roberts, from Portsmouth, New Hampshire. Mayrant was a junior lieutenant, Fanning a midshipman, and Roberts a sailor boy.

The ships had closed and were

abeam. Jones, with his own hands had lashed them together. Below decks the gunners were shooting through the sides of the ships. On deck they were blazing away with small arms from points of vantage, including the tops, while upon the main-yard, which swung well over the *Serapis*, James Fanning and George Roberts were performing the feats that were to save the day. Fanning was in command in the tops and under him came George Roberts, with a supply of hand-grenades. Creeping out upon the main-yard, followed by Fanning, he began hurling the explosive missiles upon the deck of the *Serapis*. These struck among the chests of powder. Several blew up, killing and injuring many men. Captain Pearson, noting the source of the missiles, caused the marines to fire their muskets at Roberts. One shot struck and cut a rope by which he supported himself, causing him to lose his hold upon the yard and fall, striking the gunwale of the British ship. A comrade pulled him on board the *Richard*, and nothing daunted, he scrambled again to the yard with a

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CHUCK BLUE OF STERLING

By GEORGE B. CHADWICK

SYNOPSIS OF PREVIOUS INSTALMENTS

CHARLEY (CHUCK) BLUE, a village boy, has a vision of college and football. With the encouragement and help of his mother, in charge of the village library, the dream finally comes true and Chuck finds himself a freshman at Sterling. Oliver and Bess Tilden, whose father is one of the summer residents of Sayville, had been friendly with Chuck in their younger days. Oliver, Chuck, and Hap Holmes, a friend of Oliver's at prep school, all enter the same class at Sterling. The three make the football team and Chuck wins fame in the Weymouth game. Christmas is a jolly time for Chuck, with the Tildens including him in their parties, and he saves one of Bess's friends from drowning. He returns to Sterling an acknowledged leader. He and Dan and Hap are kidnapped by the sophomores from the freshman ban-

quet. Later Chuck and his chums have a thrilling week-end in a mountain cabin. The Sterling freshman basket-ball team goes to New York to play Columbia. Chuck, Hap and Oliver are on the squad. They help win the game, and Chuck distinguishes himself by recovering Bess's lost hand-bag. On the way back to college, the boys talk over their chances with the Greek-letter fraternities. They were better than they thought, for Chuck, Hap, and Dan "make" Gamma Delt. Soon after initiation Hap is called home by the illness of his mother, but returns to college in time to get into the Weymouth baseball game. The end of the school year finds Chuck recovering from an injury received in the Weymouth game, and Hap in good humor over his winning the hurdles in the final track meet.

CHAPTER X CAUGHT IN THE FOG

CHUCK was back at Sayville for the summer, and back at his job at Hixby's. In a way, it had been hard to get used to, after his life at Sterling and the eventual experiences of his freshman year; but he had tackled gladly the humdrum routine of his work in the village store.

He had made his mother give up her position at the library for the month of July. She easily tired these days and her worn appearance somewhat troubled him.

One evening, shortly after supper, Chuck strolled down from his house toward the little dock that jutted out into the Sayville River. Suddenly he realized that he was walking without a limp. Ever since the freshman baseball game with Weymouth he had favored his ankle. At first he had gone around with a cane, but pretty soon he had discarded that—and now the thing was evidently all well, and had become so without his realizing it. He hopped around on one foot and twisted it this way and that—strong as ever! To-morrow he'd take out his football and start intensive work, practising drop kicks and punts.

Happily content in the thought, he went out to the end of the dock and sat down, dangling his feet over the edge. The sky was beginning to color itself with the first delicate shades of a coming sunset. He watched the sky—a mass of clouds to the north, bunched like white puff-balls, the edges faintly tinted, and below, over the hills, a sweep of deepening turquoise blue. He sat there idly, his body relaxed after the long day's work, his thoughts flitting along, dreamily vague.

Some one was coming down the slope behind him—he heard the soft shuffle of footsteps. But he did n't turn; he thought it was his mother, on her way to enjoy the sunset with

him. The steps sounded on the planking of the dock, then came to a stop.

"Sit down here, Mother, at the edge with me," he called. Then he heard a chuckle and quickly looked around; it was n't his mother at all, but Hap, large as life!

"Well what do you know!" Chuck cried. He sprang to his feet and joyfully greeted his friend. Then he began a rapid fire of questions:

"What are you doing in Sayville? Staying up at the Tildens'? Why did n't you let me know? How long are you going to be here?"

Hap gave him a poke.

"Slow down," he said. "Give me a chance and I'll tell you. I'm not staying at the Tildens' and I just got here. I came to spend the night with you."

"Good for you!" cried Chuck. "How did you get here?"

"In Mother's Ford. I decided suddenly, just this afternoon, that I'd come."

Hap's family was spending the summer at Hatchett's Island, east of Sayville, down on the shore of the Sound, some forty miles away.

"Come up to the house and we'll get you something to eat," Chuck immediately suggested. "Hungry?"

"No. I got dinner on the way—New Harbor," Hap answered. "Look here, Chuck, can't you take the day off to-morrow, just a single day, and play around with me? I won't urge you to try and get off for more than that."

"I'd like to—you bet I would!" Chuck answered. "Let's see! It's early in the week. Friday and Saturday are our big days. I'll call up Hixby. He's a friendly old codger."

They were on their way up the slope to the house, and as they went in, Chuck called out, "Here's Hap, Mother," and at once made for the telephone.

Mrs. Blue greeted Hap and took

him off to the sitting-room for a chat, and shortly Chuck came in with a smile on his face.

"All set!" he cried. "Hixby hemmed and hawed, but finally he said all right."

"Of course he would," said Mrs. Blue. She turned to Hap. "Mr. Hixby's a great friend of Chuck's; a good old friend of mine, too. He's very proud of Chuck's success at Sterling. 'That college boy of ours,' he calls him. He had me up at his house last fall, the afternoon of your game with Weymouth. We listened in over his radio, and he acted like a regular boy when Chuck made that run."

"Oh, now, Mother, never mind all that!" said Chuck.

But Mrs. Blue looked over at Hap and smiled, and Hap's eyes twinkled back.

"Re-markable," he said. "A hero in his own home town! I'm glad to know old Hixby's so fond of you. It will help when I tell about a little scheme I have in the back of my head."

"What is it?" asked Chuck.

"I'll tell you to-morrow," Hap answered. "No," he shook his head as Chuck began to urge him; he was obdurate. So Chuck finally gave up and began to discuss plans for the following day.

"We'll go crabbing in the morning—early," he said. "The tide will be right—just on the turn. Then later on we can go swimming, and then—"

"Why plan?" interrupted Hap. "Why not let things happen just as they happen."

"No," said Chuck, "if I'm going to have the fun of a day off, I'm going to plan for it—I know! We'll have a picnic in the evening. I can get old Bill Caulkins to let me have his motor-boat. There's a hummock down by the mouth of the river. We'll go there. And who knows—we might have an exciting adventure."

Hap listened, amused.

"How active the young man's brain is! Exciting adventures don't come just for the asking."

"Well, let's hope we have one, anyway," Chuck retorted. But it is doubtful if he would have held any such hope had he known what actually was in store for them.

spread of salt marshes, to the Sayville harbor—a harbor by courtesy only, in reality merely a small indentation of Long Island Sound.

After a steady pull, alternating at the oars, they reached the marshy land. Soon they came to a small creek that branched off to the east.

and wet, and scrambled into the boat dragging the crab-net after him.

"I was greedy and look what I got for my pains—a thorough sousing!" He made a face and Chuck laughed, then suddenly exclaimed:

"Look!—In your net. You got something else."

There, caught in the mesh was the



THEY CAME BACK TO THE BOAT, BUILT A FIRE, AND HAD THEIR SUPPER

"Who'll we take on this highfalutin picnic?" Hap asked.

"I had n't got to that," said Chuck. "Bess and Constance Elliott. She's been visiting Bess for a week. They'll jump at the chance when they know you're here."

"Oh, of course," said Hap. "The ladies all love me, Mrs. Blue."

But Chuck paid no attention to Hap's side remark; he went right on: "Oliver's away just now, so we won't ask any one else. Four's enough, is n't it?"

"Suits me," said Hap.

"You'd better take old Bill along," Mrs. Blue remarked. "I'd feel safer if he was with you."

"All right, Mother," Chuck agreed. "Wait till you get a look at the boat, Hap. Old Bill calls her 'The Covered Wagon.' You'll understand when you see her."

Bright and early the next morning, Chuck and Hap ate a hurried breakfast and started down the river in Chuck's rowboat. The river meandered for about a mile through cultivated lowlands, then through a

"We'll go up here," Chuck said. "It's the best place I know."

They sculled up to where the creek narrowed; then they stopped and took up their crab-nets. The crabs were thick, they did n't need any bait, and in short order the bottom of the boat was littered with a mass of crawling, odd-shaped green.

After a while Chuck looked the lot over. "We've got about enough," he remarked. "They'll be grand for lunch, and I suppose Mother will want to use some of the meat for salad for the picnic."

"Shush," whispered Hap,—not that he needed to whisper.—"here's a big fellow—way over here. I've got to get him." He was kneeling on the seat at the stern, leaning over, his net in the water, his arm stretched out. "Shove over, Chuck—softly—just a little."

Chuck gave a push with his oar on the near-by bank; but just at that instant the crab darted the wrong way, and Hap, lunging for it, fell overboard.

Up he came, sputtering, muddy

crab, a huge one, without any doubt the one that Hap had lunged for. The incident seemed to mark a logical time to quit, so they sculled out of the creek and into the river.

When they reached the dock, they loaded the crabs in a box and brought them up to the house, then put on their bathing-suits and came back for a swim. A dive or two, a race across the river and back, and they stretched themselves on the dock for a momentary rest.

But they had n't been there long when up the river, coming along in a canoe, they caught sight of Bess and Constance; and so for an hour or more they swam with the girls and lay around in the sun and chatted.

The Covered Wagon was anchored south of the bridge that crossed the river below Chuck's house, and about five o'clock that afternoon the two boys, loaded with provisions, sculled down to her. Old Bill Caulkins was waiting for them on the bridge.

"Jest goin' down ter the hummock, be ye?" he asked. "I'd jest as soon have Chuck run her if that's all."

Got a crick in m' back—rheumatics. These nights gits foggy.—Makes it a sight worse."

"I 'll take good care of her, Bill," said Chuck. He had often been out in the boat and knew how to run her.

"How do you like the old tub?" he asked Hap when Old Bill had ambled away. "Could n't tip her if you tried."

The Covered Wagon was a made-over lobster-boat. Old Bill Caulkins had fussed over her in his leisure time and had put in many contrivances for comfort, even for show. As she rode there by the bridge she had somewhat the appearance of a fat old woman decked out for parade.

"I don't get the name—Covered Wagon," said Hap.

"Use your noodle. Take a look," Chuck answered.

Curved uprights—bows—were set at regular intervals along the boat from the wheel aft and Chuck pointed them out.

"Old Bill runs a canvas over them in bad weather. When the canvas is up you get a curved opening down there astern—really, a lot like those old prairie-schooners you see in the pictures."

A halloo from the bridge and the two boys looked up—there were Constance and Bess. Chuck had already loosened the stern line; he now pulled the boat up to the bridge where the bow line was fastened and they helped the girls aboard. In short order they were on their way, at slow speed, down the river.

Behind them, fastened to the stern of the Covered Wagon, Chuck's rowboat bobbed along, its bow nosing out of the water. Chuck had figured that they might as well take it; they might want to row around out by the hummock.

"We've got to be home by dark," Bess said. "I promised Mother. One day last summer we went out with Old Bill—you were n't along, were you, Chuck? Well, it was a gorgeous moonlight night and after supper we went out in the Sound and stayed and stayed—too wonderful to come back. Mother was frightened. She thought we'd been drowned."

"There's no moon to-night," said Chuck. "We won't have that temptation. We'll plan to get back by eight."

It did n't take long to reach the hummock, a little rocky island, partly wooded, that lay off the mouth of the Sayville River. A ledge of flat rock poked its nose out into the water near the western end of the hummock, making a natural landing wharf, and it was here that Chuck brought the boat alongside.

They scrambled out, tied her up, and took the provisions up the rock to a higher level.

"What 'll we do?" Chuck asked. "Eat now, or hunt for huckleberries?"

"Whoever heard of coming down to the hummock in July and not going huckleberrying?" cried Bess. She turned to the other two. "It's a regular Sayville ceremony."

"In Rome do as the Romans do," said Hap. "Not quite an original remark, but never mind." And off they scattered, picking and eating, now and then pausing to jump up on a rock and look at the Sound lying peacefully before them, and beyond it the thin hazy strip of Long Island, stretching along the horizon.

But they were getting hungry, and huckleberries picked one by one are not exactly filling, so back they came to the boat, built a fire, made coffee, and had their supper.

Supper over, Bess sauntered down the rocks to where the boat lay moored. She looked off across the water—all was calm and quiet; it enticed her:

"Chuck," she called, "let's go out for a while. There's very little wind."

Chuck came down the rocks and stood beside her.

"Are n't you afraid we'll stay out too late?" he asked with a teasing glance, "and frighten your mother?"

"Don't be a goose. There's plenty of daylight left. And Constance has never been out on the Sound." She looked over her shoulder and called, "Constance, you'd like to go out on the Sound, wouldn't you?"

Constance ran down to them, followed by Hap.

"Gorgeous!" she cried. "Please take us Chuck."

Chuck was willing enough. They could go out a little distance, then keep along near the shore,—that was the best plan,—then turn back and get in to the bridge by eight o'clock, easily.

They started off, rounded Light-house Point, then turned due west. Constance was standing by Chuck, up at the wheel.

"I like it!" she cried. "Let me steer. Show me how."

"All right," Chuck answered. "I'll show you. You 's perfectly simple." He let her take his place and gave her the necessary instructions, remaining by her to watch. Thoroughly enjoying it, she kept the wheel, until he finally remarked:

"We'd better go back. I 'll take it now. We're running in a little close to the shore, anyhow. There are shoals in there, up ahead for a ways, too."

"Going to turn the boat around?"

Constance asked. "Oh, let me do it. I 'd love to."

There was really no reason why she should n't, so Chuck told her how. But her understanding of "port" and "starboard" became muddled. She turned the wheel sharply the wrong way and the boat veered in toward the shore.

"Hey, there!" cried Chuck. He grabbed the wheel, and as he did so there came a sudden scrape; the boat shuddered and began to churn to no avail. Chuck frowned with annoyance.

"Aground!" he exclaimed. "I thought we were out far enough, but the shore shifts from year to year, and then it's pretty near dead low tide."

"Did I do something awful?" Constance asked in dismay.

Chuck laughed. "No—you just got mixed in your signals. We'll back her off easily enough."

But the boat would n't move off, backward or forward. Chuck had them all come up by the wheel to shift the weight from the stern; but that did n't work. Then he and Hap went into the cabin and put on some old ducks they found stowed away down there, jumped overboard, and tried to push her off; but that did n't work, either.

"We'll have to wait until the tide lifts her," Chuck finally said. "It will be turning pretty soon. We'll be off in about an hour, Bess. Sorry."

"Oh, it's my fault" Bess answered. "I asked you to take us out. We'll be back by nine, don't you think? Mother will worry for an hour, but I'm afraid she'll have to."

There was nothing else to be done, so there they sat and waited, trying to make merry; but an underrcurrent of concern was plainly present. An evening chill was creeping up, and the boys, at Bess's insistence, went down into the cabin and changed back to their dry clothes.

Then the sun sank in the west, the water around them blackened, and off to the east the light from the Sayville lighthouse darted out and twinkled at them—it was rapidly getting dark. Chuck stood up and glanced around.

"Look," he cried, "a fog's rolling in—over there to the southeast! Why a fog to-night, of all nights?"

"Your friend, Old Bill Caulkins, was talking about fogs," said Hap; "evidently he knows."

"Does it mean that we can't get in?" exclaimed Constance, a note of fright in her voice.

"We'll make it all right," Chuck told her, reassuringly; but he did n't like that fog. "I'm going to try to get her off again," he added.

He started the engine and put in the reverse; but still the Covered Wagon stayed right where she was. Then the fog caught them, thick and damp, and suddenly they lost sight of the Sayville light.

"You could almost cut this blamed thing with a knife," said Hap. "Out alone on the briny deep! But Chuck's here to take care of us, and the tide's coming in. We'll be off and safely on our way to Sayville in no time at all." He was talking at random, simply intent on keeping the girls from being frightened.

Chuck was thinking of that too. "Hap," he said, "you take the dory and row Bess and Constance ashore. It's probably the best plan to get them out of this fix right now."

"All right," Hap answered; "but I'll come back again. I'm not going to leave you alone out here."

Bess had been sitting silent, but now, as Hap took hold of the tow-line and began to draw the dory up, she spoke:

"If Constance was n't here, I would n't think of going ashore. I'm not worried myself—not in the least."

"I don't want to go!" Constance cried nervously. Off starboard came the sound of waves breaking on a rocky shore. In the misty pall around them, it sounded awesome to her. "No, I won't go—I won't!" she cried again, and suddenly began to whimper.

Hap put her arm about the girl. "Don't do that, Connie," she said. "We'll not go. Chuck knows the Sound. He'll get us off soon."

"Sure, I'll have the old tub off in no time now," Chuck added. "Sit tight, that's all."

He started the engine again, and this time the Covered Wagon churned herself off. He at once pointed her offshore.

"I'm not going back to Sayville Harbor," he told the others. "It's a treacherous one to get into in a fog. I'll take her out, then point her west

on the shore faded; then the noise of the engine shut the sound out altogether. Chuck turned the wheel. It was safe now, he figured, to point west again. He began to watch for a lighting up through the fog to starboard; he hoped to catch soon the lights from the row of cottages on Westville beach.

But no change came in the denseness of the fog. Chuck stopped the engine. By this time they should have passed the rocky shore with its dangerous outlying shoals. If he heard a rolling wash up a sandy beach, he'd know that they were nearing Westville. He strained his ears, but caught not a sound save the slap, slap of the Covered Wagon as it rode up and down on the heaving swells. He had taken the boat out farther, evidently, than he had calculated to do. Well, he had a compass; he'd better guide the boat by that. He reached for it in the side pocket of his coat.

As he felt it he gasped, almost audibly. It was broken! How had it happened? Yes, he remembered now—in going down to the cabin to change to the ducks, he had slipped and struck against the cabin door.

Faintly in the distance he heard the blare of fog-horns. The first of the big night boats soon would be coming down the Sound. Oh, well, they'd be far out—he was n't going to worry about that. He started the engine and pointed the Covered Wagon in to starboard.

But now the distant moaning fog-horns sounded louder through the haze about them, dangerous and weird. Back in the stern of the boat

(Continued on page 750)



"HE TURNED THE WHEEL
TO PORT—TOO LATE!"

and make for Westville. No shoals there."

His nerves were taut. He'd get them there all right, but he knew he'd have to keep his wits until he did.

"Anything I can do, Chuck?" Hap asked.

"Keep the girls cheerful, that's all," Chuck answered.

"Don't try, Hap," said Bess. "This is an unpleasant experience. We've simply got to face it."

Soon the sound of waves breaking



JUST ARRIVED



—AND SETTLED



"DIRTY WORK" AFLOAT



MAKING FIRE INDIAN FASHION

ILLUSTRATIONS FROM PHOTOGRAPHS BY D. WARREN BOVER



RED CROSS AFIELD



PUSH HIM OVER



"TUNNEY NEXT"



"V"—FOR THE YOUNG MAN IN THE MAKING

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SMOKE-TREES OF THE DESERT

By JESSIE LINKLETTER

IN the Great American Desert in the interesting valleys of the Coachella and the Chuckwalla grows a strange gray-green tree. At a distance, these trees appear like rolling wisps of smoke rising from the camp-fire. They are

light green gleams forth, and rising proudly above the drab desert, it takes on the appearance of a real tree.

Only in certain localities does this unique tree seem to flourish, and it is always found growing in the dry bed

tient, had gone down a distance of twelve feet and had not reached the end of the root when the naturalist ordered him to cease work. A tree so tenacious and in the arid desert sending its roots such a distance for water deserves to live in the spot of its own choosing.

In early summer, especially after a sudden torrential downpour of rain, the smoke-trees are covered with a cloud of beautiful pea-like blossoms of a dainty blue, the shade of lapis lazuli. Nectar-loving insects, and occasionally little whirring hummingbirds, fly many miles over the desert to enjoy the flowers.

The blossoming period does not last long. The warm, relentless winds blow off the cheerful blooms in a colorful heap at the base of the tree, where the pitiless desert sun hastens the withering and drying until only a pile of brownish dry flowerets remain.

Thoughtless tourists have been breaking down great branches of this odd tree, especially when the flowers are in bloom, and there was grave danger of the smoke-trees becoming scarce, when a nature-lover sent in a plea for their preservation. It is now unlawful to pick the flowers or to destroy the trees, at least on the Indian Reservation.

The old name of this unique desert shrub was *Dalea spinosa*, but it is now known as *Parosela spinosa*. But



Photograph by W. A. Linkletter
A FOREST OF SMOKE-TREES IN CHUCKWALLA VALLEY, CALIFORNIA

known to the desert men and to the Indians as "smoke-trees."

Just at that hour when the hot sun had dropped below the horizon and the sky was aglow with brilliant, burning colors, a group of smoke-trees along the highway in Coachella Valley gave the almost perfect illusion of billowy clouds of smoke. On closer inspection the tree was found to be virtually leafless and to consist of a mass of closely intermingled short branches and thorns of a grayish-green color.

Other trees of the desert are interesting. The mesquite, which gives food, shade, and fire-wood to the desert dweller, the palo verde, which sometimes grows to a height of thirty feet, and the ironwood, which is the only full-fledged tree of the desert, all come in for their share of notice and admiration in an almost treeless expanse. The fact that a tree should have the appearance of a whiff of smoke seems almost unbelievable, and is one of the secrets which Nature refuses to reveal. Perhaps an ancient Coahuilla Indian could give a logical myth about the smoke-tree which might satisfy a poet's mind, but the layman continues to wonder at this strange phenomenon.

The smoke-tree should be classed as a shrub on account of its low stature, for it seldom grows taller than twelve or thirteen feet; but here and there a smooth green trunk of

of some ancient stream. It is an interesting sight to see a long, wavering row of cloud-like trees, growing in a desert wash, following an uncertain course, like a column of old soldiers wearied from a long march.

The main roots go down to a great depth in search of water. The story



Photograph by W. A. Linkletter
A SMOKE-TREE GROWING IN THE COLORADO DESERT

told of a naturalist who desired a smoke-tree to transplant in his home garden and hired a desert Indian to dig it up and preserve the main root intact. The Indian, stolid and pa-

what's in a name? The smoke-trees continue to flourish, to flaunt their glorious blossoms in spring, and to bow their spiny, tangled branches before the desert winds.

OUR NATIONAL BIRD

By E. G. CHEYNEY

THERE is something fascinating about the great bald-headed eagle. Much poetry has been written about him and some very flattering things have been said. But he has some traits for which we cannot be very proud of him even if he is our national emblem.

I saw a big fellow one day sitting on top of a tall, dead stub just on the edge of the gulf beach in Florida. He looked proud as a king, and, like a king, he had slave working for him; but I had not yet noticed the slave.

Then a fish-hawk caught my eye. He, too, was a big bird. He was circling slowly around some ten or fifteen feet above the waves. He looked as free as anybody. Suddenly he closed his wings, shot down till he was half buried in the trough of a wave, and rose again with a fish over a foot long struggling in his talons. Up and up he went till he was at least two or three hundred feet in the air.

Then the king dropped silently off of his dead stub and I saw that the poor old fish-hawk was nothing but a slave. He saw the king coming and made the best time he could; he evidently was not a very willing slave. But the eagle, with his greater spread of wing, was soon directly beneath him and rising rapidly. The fish-hawk held on till he saw that escape was impossible, and then he dropped the fish.

That was what the eagle had been waiting for. He turned in the air like a spent arrow, shot suddenly downward, and caught the fish in his talons before it struck the water. Then he soared majestically back to his stub and proceeded to a kingly feast.

The fish-hawk was evidently used to such treatment and thought that it



"HE LOOKED PROUD AS A KING"

was all in the day's work. He went patiently back to catch another fish. It was not very long till he had one; but the king had timed his appetite well and was ready for him. Again he chased the fish-hawk and took away his prize. And it was the same with a third one.

That seemed to satisfy the king for he sat sleepy on his perch and let the poor old fish-hawk have the fourth one for himself. It does not seem that our national bird ought to stoop to highway robbery; but he did, and seemed proud of it.

I think that one reason why we like him is that he mates for life and comes back to the same place to nest year after year.

There is a pair of them that nest about two miles from our cabin in the north woods. They have been there

fifteen or twenty years. The nest was in a tall Norway pine about an eighth of a mile from the lake shore. Before they had nested there many years the tree died.

We went over to the foot of the tree one day to have a closer look at the nest. The great birds circled about in the air and screamed at us threateningly, but they showed no tendency to bother us.

The nest was about six feet across. It was built of heavy sticks, some of them as thick as my arm, and looked like a crude thing, but it was certainly substantial, for it was completely exposed in that dead tree and we have had some violent storms since it was built, but it has withstood them all. The ground beneath was covered with bones and trash from the nest. Some of the bones were large, probably those of a fawn, others were those of rabbits and snakes.

About six years ago another nest was built in a white-pine tree across the lake. That tree was green and healthy when they built there. In four years it was dead. I do not know what kills them, but every tree in which they build dies.

Often when we paddled down the lake we could see the young ones sitting on the edge of the nest. Once when they were almost full grown we saw three of them down on the lake shore looking for fish. They were all black then.

We often wonder what becomes of them all. There must have been twenty-five or thirty of them hatched down there in that old nest since I have known it; but I have never known more than two pairs to be in that same locality at any one time.

Why do the old ones come back and never the young ones?

KEEPING UP WITH SCIENCE

By FLOYD L. DARROW

FINDING MORE "MISSING LINKS"

I AM going to place first on our list of important happenings in science the discovery in the Gobi Desert, of far-off Mongolia, of what Dr. William King Gregory, of the American Museum of Natural History, calls "veritable missing links." All of you surely know of the Asiatic expeditions of the American Museum led by Roy Chapman Andrews. You remember, too, how this famous explorer startled the world last year with his discovery of dinosaur eggs, laid by monstrous reptiles living in those same regions millions of years ago. He has now found a handful of fossils which tell an even more wonderful story than did the dinosaur eggs. Fossils, as you know, are the remains of animal and vegetable life embedded in the soft deposits of earlier geologic ages. Although the deposits, in most instances, have since turned to stone, and the animal and vegetable parts have either petrified or disappeared, the record still remains. Often the delicate tracing of some plant specimen, such as a fern, has been preserved in beautiful and imperishable form. In a museum in Wilkes-Barre, Pennsylvania, not long ago, I saw the fossil stump of a giant tree discovered in one of the anthracite mines. It had completely changed to coal.

You have heard much of "missing links." A missing link is some hitherto undiscovered form of animal life bridging a gap between two related fossil species. One species is more primitive, less highly developed, than the other, but scientists are unable to find a complete set of fossils showing all the steps by which the lower type is believed to have passed through long periods of time to the higher form. These absent fossils are missing links. So expert do scientists become in their knowledge of the comparative anatomy of ancient forms of life, that they are often able to foretell just what peculiar characteristics of bony structure these missing types will have.

Now this find of Mr. Andrews consists of a half dozen imperfect skulls of ancient mammals, the great class of animals to which the human species belongs. Five of these skulls belong to what are called the placental series of mammals, leading through successive extinct fossil types to modern mammals. But, and this is the interesting thing, these Mongolian skulls,

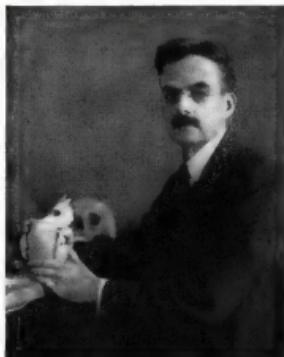
much more primitive in type than any previously found, unmistakably link the later placental mammals with the ancient form of insectivorous mammals. And this is a prediction which Huxley, Henry Fairfield Osborn, and other great specialists in this field had made. But it could not be proved. The "missing links" could not be found. Mr. Andrews has now sup-

to science. You may wonder how Dr. Gidley knows that these bones belonged to an ancient type of sloth. That is easy for the expert. Let me tell you that Cuvier, the great French founder of this branch of science, was so proficient in his knowledge of anatomy that he could reconstruct the skeleton of an animal from a single bone.

Dr. Gidley also found the bones of the three-toed horse. I wonder if you know that the American Museum of Natural History possesses an almost unbroken series of fossils showing the development of the horse's hoof from that of a little four-toed animal no bigger than a cat, step by step, to the noble beast which we know to-day? These fossils go back for three million years. In them we can see just how one of these toes grew larger and larger, slowly changing into the hoof, while the others gradually disappeared, save for certain remnants, which scientists call "vestigial structures."

THE GREAT FLOOD

Of course, we are all familiar with the great flood recently occurring in the Mississippi River Valley. But just why did this flood come? Looking back we can now see some of the reasons. For months before the flood began, there had been excessively heavy rainfalls throughout the Mississippi River basin. They began in Oklahoma in August and continued rather generally over the whole basin during the autumn and winter. At various times, the principal tributaries were in flood. Late in January the waters of the Ohio stood 30 feet above the average in Pittsburgh and 59 feet in Cincinnati. From September to March a dozen important stations in the Mississippi Valley registered rainfalls ranging from 3.9 inches to 17.1 inches above normal. These unusual conditions, the Weather Bureau had no means of forecasting. Seldom does it come about, as in this case, that all the great watersheds of the valley are flooded at the same time. It usually happens that some portions of the great drainage-area of 1,240,050 square miles may be suffering from drought, while others are experiencing torrential rains. It is generally true, too, that the flood crests of the tributary rivers will reach the Mississippi at different



Courtesy American Museum of Natural History

DR. WILLIAM KING GREGORY

plied the evidence. One of the most interesting circumstances associated with this discovery is that the teeth of these ancient mammals are precisely the same in structure as scientists had foretold that these missing links, missing no longer, would possess when they were found. I almost forgot to say that these fossils are at least ten million years old.

While we are speaking of fossils and missing links, I want to tell you of some recent discoveries by Dr. James W. Gidley, of the National Museum in Washington. He has been searching in Oklahoma and Florida for fossil remains of mammoths, those elephant-like animals which passed out of existence in the glacial period of geologic time, a period with which you are familiar from your study of physical geography. Near Alva, Oklahoma, Dr. Gidley unearthed part of a skeleton of a mammoth. But more than this, he dug from these same deposits the foot-bones and lower jaw of a giant sloth, which he believes belongs to a species never before known

times. The big river will have time to take care of one large volume of water before the next arrives. But more nearly than ever before these different flood crests came together. The result was a vast piling up of waters beyond the capacity of the Mississippi and its levees to care for. In the wake of its mad fury are the wreckage of homes, farms, and forests, and the sad toll of human life.

Many factors affect the amount of run-off from a watershed, such as the character of the soil, the slope of the land, and the extent of wooded areas. The soil may be hard and impervious or loose and porous; the land may be steep as in the upper Ohio valley, or flat and level as in Illinois; and there may be dense coverings of forests or other vegetation, or an entire absence of them.

The solution of the problem of flood prevention in future is largely a matter for the engineers. Still, there is one aspect of this question which concerns every citizen. That is the rapid cutting away of the forests about the head-waters of our streams and rivers. These forests act as great reservoirs to hold the water which falls upon them in check, and to give it out slowly, thus regulating the height of water in the rivers. Through bitter experience, this lesson has been learned in Europe. We, too, must heed it.

USING A BILLIONTH OF AN AMPERE

PROBABLY the most sensitive electric instrument ever devised has recently been invented by D. D. Knowles, a young scientist in the research laboratories of the Westinghouse Company, in Pittsburgh. The energy in an ounce of coal is sufficient to operate it seventeen billion times. Put in another way, the electricity required to light an ordinary 60-watt lamp would operate it sixty million times, or the energy expended by a fly climbing vertically one inch on a window pane would set forty of these tubes going at once. One-billionth of an ampere will operate it.

Now let us see what this tube is like and to what uses it can be put. It looks very much like a radio vacuum-tube. Inside the glass bulb are a negative electrode and a positive electrode. Surrounding the latter is a grid, familiar to every one who has a radio set. This grid is the third electrode. Unlike a radio bulb, this tube contains no filament. Instead it is filled in highly rarefied form with neon, one of the rare gases of the atmosphere. Now suppose we place a battery across the terminals of the positive and negative electrodes.

Nothing will seem to happen. No current will flow. Still, something does happen. Electrons, negative particles of electricity, pass over from

through the rarefied neon gas, and neon will give an orange glow when an electric discharge passes through it. This current is sufficient to operate a relay and give a signal, which may be the ringing of a bell or some other alarm.

Let us imagine that a piece of tin-foil is fastened to the glass of a showcase containing diamonds, and connected to the grid-terminal of this tube. If some over-curious individual lingers close to the case, the tube will glow, a current will pass, and a signal will be given. Again, suppose a watch is displayed on a velvet mat beneath which is a piece of tin-foil connected with the tube. Should a thief reach out to take this watch, the tube would become excited, swarms of electrons would pass, and a burglar-alarm would ring. The device may be used for fire protection. Flame or smoke will put the tube into operation.

Mr. Knowles is a young graduate of Purdue University, who has been with the Westinghouse Company since 1923.

A NEW ELEMENT

IN 1925, Dr. Walter Noddack, of the University of Berlin, announced the discovery of two new elements, rhenium and masurium, designated in the Periodic Table as elements 75 and 43 respectively. Last year, however, Dr. O. Zvjaginsev, of the Platinum Institute in Russia, repeated the experiments of Professor Noddack and failed to find either element. This made it impossible for the scientific world to accept these elements as



Courtesy of the Louisville "Courier-Journal"
HOW THE MISSISSIPPI RIVER LOOKS TO
THE GOVERNMENT ENGINEERS

the negative electrode and attach themselves to the grid. When the grid is thoroughly insulated, these electrons cannot escape. They remain on the grid. But, suppose one brings his hand near to the grid-terminal, as Mr. Knowles is doing in the illustration. Immediately, some of these electrons pass from the grid to the hand, and the tube begins to glow. This is because a current now flows between the positive and negative electrodes of the tube, which simply means that electrons are discharging



D. D. KNOWLES, THE INVENTOR, EXPERIMENTING WITH AN ELECTRICAL DEVICE OPERATING ON A BILLIONTH OF AN AMPERE

certainly discovered. News now comes that Doctors Walter and Ida Noddack have succeeded in obtaining a small quantity of rhenium in pure form. It is a black powder and unites readily with a number of other elements. With this discovery, only three of the ninety-two elements known to exist remain to be found. In one direction, scientists are surely nearing the frontiers of exploration. If you wish to cover yourself with glory by the discovery of a new element, you will have to hurry.

SOME DISCOVERIES IN CHEMISTRY

THE New York "Times" of April 14 carried the following announcement from Richmond, Virginia: "A discovery in chemistry, worth millions of dollars to fruit-growers of America, was announced to-day at the convention of the American Chemical Society here."

Dr. R. B. Harvey, of the College of Agriculture in St. Paul, has found that ethylene gas will ripen, in a few hours, fruit which would require days or even weeks to ripen, if it were to remain on the trees exposed only to the sunshine. The green fruit is placed in a closed room, the air of which contains a small quantity of the gas, and the ripening speedily follows. The ripened fruit is of excellent flavor and not so strongly acid as is that ripened in the sunshine. A fruit-grower no longer needs to delay the marketing of his product until the whole crop is ready. He may ripen it himself and distribute its sale over a period of weeks.

A number of years ago, it was discovered that ethylene is an important anesthetic in surgical operations and much safer in many instances than chloroform or ether. And it has been known, too, that the gas will cause the rapid yellowing of citrus fruits. Doctor Harvey has also used it to bleach celery, to which it gives a delicious flavor. In composition, ethylene is similar to acetylene and, for cutting steel with a torch, is superior to the latter.

Not long ago, I told you in these pages of the new Coolidge Cathode Tube. We were wondering then of what use the rays from this tube would be. Dr. J. S. Long, of Lehigh University, has recently discovered that, for one thing, they will hasten the drying of paint. You will be interested to know, too, that Dr. Coolidge plans to build a super-cathode-ray tube in which the electrons shot from the cathode will move with velocities almost equal to that of light. Great possibilities, particularly in the treatment of cancer, may await the coming of this invention.

Possibly, you have a knife or some other piece of cutlery made of stainless steel. The element which gives this property to steel is chromium, and this metal is coming to be of great importance in making other alloys, some of which are essential both to peace and war. The use of chromium has increased in the United States alone eighty-two per cent since 1921. Chemists were becoming alarmed about the supply of chromium ore.

not be obtained in pure form. For three-quarters of a century the metal remained exceedingly rare. In 1896, the Firminy Steel Works in France used it as an alloy in making steel. Armor-plate containing the metal was wonderfully superior to plate without it. Three years later, a chemist in England discovered that three-tenths of a per cent of vanadium had a greater effect upon the metal cutting qualities of steel than did three per



A GENERAL VIEW OF THE VANADIUM DEPOSIT IN PERU, SOUTH AMERICA

Recent discoveries, particularly in southern Rhodesia (I wonder if you know where that is), assure the world ample quantities for many years to come.

TWO OTHER METALS

J. W. MARDEN and M. N. Rich, two research chemists of the Westinghouse Company, after a century and more of failure on the part of other chemists, have succeeded in obtaining the metal vanadium in pure form. We are told that the "beads of vanadium are very bright, have a steel-white color and are quite malleable, soft and ductile." As yet there is no known use for the pure metal. But that is simply because its uses have not been discovered. Tungsten was long thought to be useless, but together with the gas-filled bulb it reduces the electric-light bill of this country, over what it would be with the old carbon-filament lamp, by a billion and a half dollars a year.

Let me tell you just a bit of the history of this interesting metal. It was discovered in Mexico by Del Rio, a Spaniard, in 1801, for you must know that an element may be known in its compounds even though it can

cent of tungsten, the metal chiefly used for this purpose.

The need had been established. A supply of the precious stuff must be forthcoming. Two business men of Pittsburgh, J. J. and J. M. Flannery, brothers, determined to ransack the earth until they should find it. The search continued for five years. Then success came. High in the Andes of Peru, South America, a wonderfully rich deposit of vanadium ore was found. The mine is in a snow-capped range 15,500 feet above sea level, the highest mining operation in the world. Ninety percent and more of the world's supply of vanadium comes from there. Formerly transported down the mountain-side in bags on the backs of llamas, it is now carried on a narrow-gauge railroad. By sea and rail, it is brought to the plant of the Vanadium Corporation of America, at Bridgeville, Pennsylvania, where the metal is separated in the form of an alloy for use in the steel industry. Small quantities of vanadium have a more marked effect upon the properties of steel than has any other metal. The other metal is barium. Many of you have used the compound barium chloride as a testing reagent

in chemistry laboratory experiments. But, like vanadium, until now the metal has never been obtained in pure form. Professors R. A. Baker and A. J. King, of Syracuse University, have succeeded in making the separation. Barium turns out to be a soft, shining metal resembling sodium and potassium and, like them, exceedingly active. So energetic is it that a breath of moist air will set it on fire. It must be kept in sealed glass-tubes filled with the very inactive gas argon. What its uses will be remain to be discovered.

POWER FROM NATURAL STEAM

SUPPOSE you had a high-pressure boiler with steam always up, which required no coal or other fuel to keep it going. That, I think, would be as near an approach to perpetual motion as we shall ever reach. In the steam-wells of Sonoma County, California, men are tapping a source of natural power closely resembling such a boiler. Dr. Arthur L. Day, Director of the Geophysical Laboratory of the Carnegie Institution, has been making borings there. Five wells have been sunk to depths varying from 300 to 600 feet. Live steam, at pressures reaching sometimes as much as 276 pounds per square inch, issues from these vents. Already a total output of nearly 5,000 horse-power has been obtained, and as yet only a beginning has been made. This steam is wonderfully free from impurities, so much so that Dr. Day thinks it can be used directly in engines for the generation of power without injury to metal parts.

You have probably read of the cities in Italy which are supplied with electricity generated by natural steam-power. Volterra, one of the oldest towns in the world, is so supplied. So are Siena and Florence. One of these wells near Larderello supplies a continuous stream of power equivalent to the amount which would be produced by burning coal at the rate of ten tons an hour.

Not only in Sonoma County, but in other parts of California and in Nevada are similar steam wells. Drilling is also being carried out near the crater of Kilauea, in Hawaii, for natural steam-power. The holes already drilled in California show no signs of diminishing pressure. Scientists believe that this natural steam is generated by underground streams of water coming in contact with hot rock. The conditions are somewhat similar to those found in Yellowstone Park. That this steam, like water-power, may be put to work, there is no doubt. Just as in Italy, it may become a factor of considerable industrial importance.

HELIUM

THE last few months have witnessed what scientists supposed was the fulfilment of a great hope, only to have it followed by disappointment. Toward the close of 1926, Doctors Paneth and Peters, two noted German chemists, reported that they had succeeded in changing hydrogen into helium. That is, the long sought transmutation of a lighter element into a heavier one had at last been accomplished. Although no gold had been produced, the real dream of the alchemist had come true. To be sure, only a very minute quantity of the heavier gas was obtained, but the experimenters believed that there was no doubt as to the actual change. The spectroscope, that marvelous instrument which tells no lies, revealed the tell-tale spectral lines of the element helium.

True, the spectroscope did show the presence of helium. Of that, there is no doubt. But, neither at Cornell University, where Dr. Paneth has been lecturing, nor at Princeton, where he has been doing more research work upon the problem, has he been able to repeat the experiment successfully. It has been found that the traces of the gas detected as a result of the experiments in Germany came from the apparatus itself. A mass of asbestos and the glass tubing used contained exceedingly slight amounts of helium, which came out on

covered in 1867 by Sir Norman Lockyer in the atmosphere of the sun, and found a generation later by Sir William Ramsay in the earth's atmosphere. I well remember once having heard Sir William give a series of lectures on these rare gases, in which he exhibited samples of the first of them ever to have been isolated. You know, too, the use of helium as a substitute for hydrogen in filling airships. But the important thing about this supposed transformation is that, could it be carried out on a large scale, vast quantities of energy would be liberated. Our present sources of energy—coal, petroleum, natural-gas, and waterpower—would become insignificant in comparison. The discoveries of Millikan, with regard to the cosmic rays, of which I shall tell you more some other time, indicate that this transformation is actually taking place in the nebulae and distant stars. Sometime, we may be able to carry it out here on the earth.

INTERESTING ITEMS

AT Scott Field, Belleville, Illinois, Captain Hawthorne C. Gray, in May, broke the world's altitude record for a balloon ascension, arising to a height of 42,470 feet. Aided by an artificial supply of oxygen for breathing and an electric-heater for warmth, Captain Gray experienced no discomfort, and seemed to be no worse for the undertaking.



THE FIRST TWO WELLS DRILLED AT THE GEYSERS, SONOMA COUNTY, CALIFORNIA

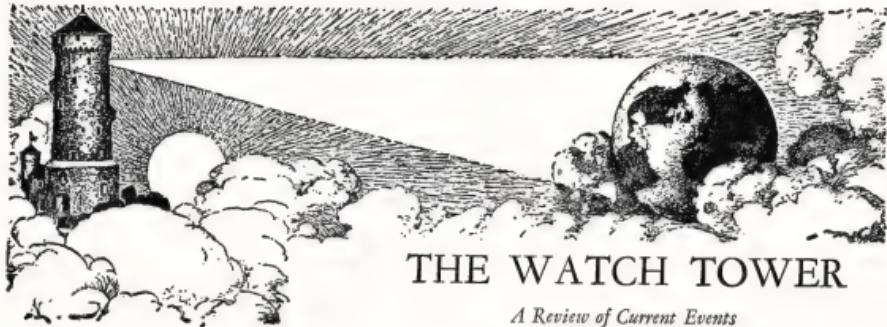
heating. This was sufficient for the spectroscopic test. The mistake has now been announced by the German professors themselves.

I do not need to tell you that helium is one of the rare gases of the air, dis-

Captain Gray has written a description of his record-breaking flight for the August ST. NICHOLAS.

The German cruiser *Emden*, on its way around the world, recently re-

(Continued on page 753)



THE WATCH TOWER

A Review of Current Events

By EDWARD N. TEALL

INDEPENDENCE

THE time has come again when we celebrate the birthday of American independence, the anniversary of the declaration by which America gave notice to the world that it would no longer be part of a colonial empire ruled from the other side of the Atlantic Ocean, but a self-ruling nation. Through a century and a half of national history we have maintained our independence, and it is impossible to imagine the United States ever being anything but a self-ruling people, powerful itself, and ever ready to help other nations to the enjoyment of freedom.

I can imagine some one saying "Applesauce!" Which would not be exactly polite, but (to my way of thinking) would be fair enough. You know how it is on anniversaries: people get all excited, aglow with enthusiasm, and say nice things, which, all too often, are forgotten when the celebration is over. The things we say about America on the Fourth of July are good, and they are mostly true as a matter of theory. They are precious if we make them true in fact, true in our national conduct.

Perhaps some Watch Tower boys and girls won't like what I am going to say, but I hope the majority will. It is simply this, that on this Independence Day of 1927, the American people may well be giving some thought to the great new struggle for independence that is going on in the Far East.

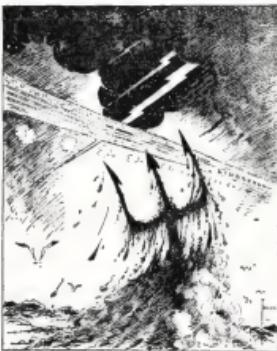
In China, we see something much greater than a struggle between the North and the South for power; something bigger than a civil war. China is truly struggling for national independence. Not that China has

been a conquered province of any European government; but the white man has used his great power to dictate to China, and has wrung from her privileges which do not come to foreigners in any land save through intimidation and coercion by a stronger military organization.

The United States Government is let China prove itself worthy of true independence. We hope to see China free and strong and well governed for the good of all her people and the United States respected and liked by them.

LINDBERGH, PILOT EXTRAORDINARY AND AMBASSADOR PLENIPOTENTIARY

CAPTAIN CHARLES LINDBERGH did single-handed what German armies tried four years to do—and failed. He captured Paris! When he landed in his monoplane, *The Spirit of St. Louis*, on Le Bourget Aérodrome at



© N. Y. Tribune. Courtesy N. Y. Herald Tribune
A TWO-FOLD VICTORY

10.21 P.M. (5.21 P.M. New York time) May 21, opened the door of his cabin in which he had been a "prisoner" for 33½ hours, and said, "I'm Charles Lindbergh," he had Paris, and all of France, as his happy hostages.

At the time we are writing (May 26) the tide of enthusiasm had not spent itself; in fact each day brought fresh honors and crowds and cheers, and through it all Charles, as the French President affectionately called him when he bestowed the Cross of the Legion of Honor, kept his head. Battling storm and sleet over the sea was probably easy compared with facing the storm of enthusiasm which this thrilling flight aroused on both sides of the Atlantic, now bridged so swiftly. France, still grieving for brave Nungesser and Coli, received our lad with open arms and showered him with every possible attention. Other nations joined in the tribute. Italy, worried for a day over De Pinedo, forced down on his flight from Trepassey Bay to the Azores, hailed Lindbergh. Despite the disappointment over the failure of a Royal Air Force long-distance flight to Karachi, India, Britain joined in the acclaim and asked for a visit before our hero should return home. Belgium was to have a glimpse of him; Berlin asked for one, too.

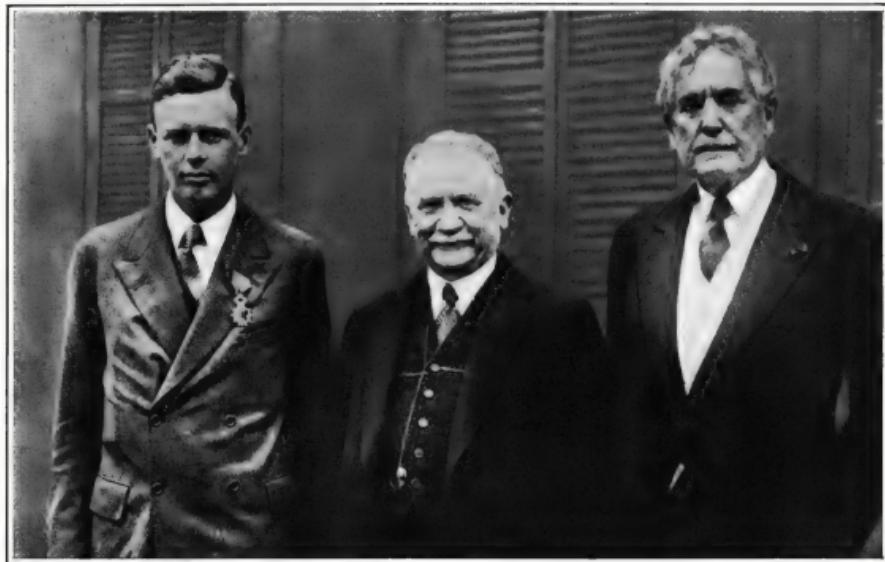
As a pilot, Charles Lindbergh was proving the greatest success as an ambassador of good-will, and in his natural, straightforward way, was renewing those warm and close relations which were our portion of world friendship a few years ago, but which have sadly lost their fire and intimacy in days of debt settling and aloofness in foreign policy.

No stage was ever set so perfectly. No pre-arrangement could have been so nicely calculated. Out of the West



Wide World Photos

CHARLES LINDBERGH AND HIS AIRPLANE, "THE SPIRIT OF ST. LOUIS," FROM A PHOTOGRAPH MADE AT CURTISS FIELD, LONG ISLAND, A FEW DAYS BEFORE HE TOOK OFF FOR PARIS.



Associated Press

THIS PHOTOGRAPH WAS MADE ON THE STEPS OF THE ÉLYSÉE PALACE, JUST AFTER GASTON DOUMERGUE, PRESIDENT OF FRANCE, HAD CONFERRED THE CROSS OF THE LEGION OF HONOR ON CAPTAIN CHARLES LINDBERGH. FROM LEFT TO RIGHT: CAPTAIN LINDBERGH, PRESIDENT DOUMERGUE, AND UNITED STATES AMBASSADOR MYRON T. HERRICK.



Wide World Photos

A VIEW OF ONE OF THE FLOODED CITIES IN THE MISSISSIPPI RIVER VALLEY. THIS ILLUSTRATION IS FROM A PHOTOGRAPH TAKEN BY A U.S. ARMY AIRPLANE, EN ROUTE TO SAN ANTONIO FOR AERIAL MANEUVERS



Wide World Photos

THE FLOOD WATERS OF THE MISSISSIPPI POURING THROUGH ONE OF THE BREAKS MADE BY DYNAMITING THE POYDRAS LEVEE, FIFTEEN MILES BELOW NEW ORLEANS. ST. BERNARD PARISH WAS FLOODED TO SAVE THE CITY

came our mail-pilot in his American-made-and-engined 'plane. From San Diego to St. Louis and then New York—two hops to a continent. A brief wait in New York for good weather, time spent in tinkering the engine, visiting with his mother, and seeing a few plays. Then a quick and quiet getaway; no ceremony—only a sandwich or two, a bottle of water, some letters of introduction, and Lindbergh was off for Paris! Up the coast he flew, eager eyes watching, and reports eagerly read. At seven that night, twelve hours from the take-off, he passed over St. John's, Newfoundland into the elements—water and air, and to do battle with the gods of wind and rain and ice. Winging his way, clipping off the miles, flying low, now high, he won through. Never was news so welcome as that from Ireland; his success was then assured, but the radio announcement, twenty minutes after he landed, was a relief—a nation on this side again breathed normally, while a nation on the other side burst into joy.

And we know that we voice the feelings of all our boys and girls—all of the same great class as Lindbergh—when we say: "Charles, you are the ace of aces, both in the air and on the ground; we are proud of you; we admire your courage and your fine sportsmanship; we salute you, M. le Chevalier!"

THE FATHER OF WATERS

It will be too bad if this year comes to a close without a definite program being adopted for new and improved methods of flood control in the Mississippi Valley. It would be a disgrace to any nation, after suffering such disasters as those of last spring, if the country's finest engineering skill failed to be organized, and its resources to be used to the limit. Quite early in May, Secretary Hoover estimated the damage already done at a minimum of 300 million dollars. The loss in lives and health could not be expressed in figures. And the papers were still full, day by day, of new reports of levees giving way, new areas being inundated.

One of the most remarkable stories

of the flood period came when the Poydras levee was blasted, flooding the St. Bernard Parish (county) in Louisiana, in order to save New Orleans. The people of St. Bernard

a channel is known as a "spillway." The policy in force for many years has been that of confining the river within levees. Some engineers hold that, thus confined, the river will cut



Herbert Photos

TWO TURKISH WOMEN CLERKS, MODERNLY ATTIRED, ENTERING A GOVERNMENT BUILDING IN CONSTANTINOPLE

are farmers, with a good many trappers and hunters. Their forefathers settled the country two centuries ago. A somewhat isolated community, with intense local pride. The city people demanded that the dike be broken, to provide an outlet for the flood. The country people felt that the levee should be left standing, to protect their homes. Finally the levee was blasted by army engineers, and the flood poured out over St. Bernard. One thing that all of us should bear in mind is the need of justice being done in full. The sacrifice of St. Bernard saved New Orleans, and the city and the State owe the St. Bernard people full payment for all their losses.

The blasting of the levee suggests the key to the flood problem. New Orleans was saved by diverting the waters into a new channel. Such

itself a deeper channel, able to hold an extra volume of water. But the floods of this spring demonstrated the need of further provision for carrying off the extra water. Possibly a great system of spillways is the best solution.

But levees and spillways are defenses against floods already started. Is there no way to prevent the accumulation of waters? One possibility is, reforestation. Forests hold the land together, they check the release of great volumes of water, and make the flow more regular and consistent. Great areas of woodland have been cut around the headwaters of the Mississippi and its tributaries. No doubt there always were spring floods in the Mississippi Valley; but never have they attained such proportions and done such damage as this year. It is likely that



HOW LINDBERGH CROSSED A CONTINENT AND AN OCEAN

reforestation would check the floods of the future.

While Secretary Hoover took command of the relief forces, and the Red Cross collected millions of dollars for food, medicine, clothes, and shelter for the refugees, Senator James Reed of Missouri called upon the President to assemble Congress in a special session, to see what could be done by the Federal Government. The President did not see anything to be gained by such a move, but he did order the

But it would be a great mistake to write THE WATCH TOWER as though this were a perfect world. There are such unpleasant things going on all the time as those involved in the Sacco-Vanzetti trial, and they are important to us all because each one of them tests the administration of justice in our courts. Therefore, THE WATCH TOWER would not be doing right if it ignored this case.

A murder was committed at South Braintree, Massachusetts. Two Ital-

evidence was sufficient in itself to throw doubt upon the justice of the verdict, and the sentence against the two Italians. The affair became a matter of nation-wide concern. Governor Fuller, of Massachusetts, was urged to study the whole case, with a view to a possible pardon. And there the matter stood as this WATCH TOWER was written.

The truth is, of course, the fact of Sacco's and Vanzetti's being anarchists has nothing whatever to do with justice in their trial. They are either innocent or guilty, and it is the State's business to find out which. If the courts did not give them a fair trial, it would be a terrible thing to execute them. If they are guilty, it would be an equally terrible thing to let the Reds frighten a great State into surrender.

The integrity of the courts is one of the most important things to all citizens. We live under the law. The courts try those accused of breaking the law. They exist not only for the protection of society against lawbreakers, but also for the protection of persons falsely accused. They administer justice. It would be most unfortunate to have confidence in the courts destroyed, either by questioning their decisions unjustifiably, or by permitting them to make serious mistakes without being held to account.

Governor Fuller faced one of the most difficult tasks a man could be called upon to confront, with the threats of the Reds pressing one way, and a large body of most respectable opinion pulling the other way. On one side, respect for the courts, and on the other, the certainty that it would be better to correct them if in the wrong than to let their mistake stand. Justice is greater than any court!

IN TURKEY

TURKEY is being modernized, and westernized. Part of the process is emancipation of women. Through ages of history, the women of Turkey were told that "woman's place is in the home." They were almost domestic prisoners. When they appeared in public, they were heavily veiled. They had no rights, as women; they regarded their husbands as masters.

Even in the days when our women were fighting for women's rights and equal suffrage, they had a freedom of which Turkish women never dreamed. To the Turkish women, the life of an American woman no doubt seemed as strange as their ways did to us. It is just as far, you know, from B to A as it is from A to B.

(Continued on page 751)



Ewing Galloway

A VIEW OF THE OLD SPANISH FORT IN SAN JUAN, PORTO RICO

army engineers to get busy at once collecting information. This winter, when Congress is in session, there certainly should be some action for the future. Possibly the best plan would be to appoint a commission, with the Secretaries of War and the Interior and some leading engineers as members, to gather data from which Congress could evolve a plan of flood defense.

The nation would be aroused by an invasion of armies causing such damage. There is no reason why we should submit to such an invasion by floods. There must be a way to prevent the flooding of whole states, and it is up to Uncle Sam's engineers to find it, and to Congress to put it into operation.

JUSTICE FOR ALL

THE WATCH TOWER is not a kindergarden. We try to pick out cheerful subjects, for we believe it wrong to regard the news as nothing but the sensational happenings of crime and disaster, suffering, and loss of lives and property. We believe that for every crime reported in the newspapers there are millions of good deeds that go unchronicled because it is not exciting to read about them.

ians, Sacco and Vanzetti, were arrested and tried. For several years they were kept in cells, while the courts tried to reach a conclusion as to their guilt or innocence. The lawyers fought bitter battles over the case. The men's friends declared that they were being persecuted; they were imprisoned at a time, soon after the war, when the country was having a scare over the Reds, and A. M. Palmer, Attorney-General of the United States, was "getting after" them. Reds, communists, and anarchists, in this and other countries, made a tremendous to-do over it. American legations and embassies abroad were threatened. There was forgetfulness of true justice on both sides; both among those who wanted the men executed because they were Reds, and among those who wanted them freed because they were Reds, not because they had been proved guilty or proved innocent.

The court that condemned the two men to die refused to consider the sworn statement by a convict that Sacco and Vanzetti had not had any part in the crime for which they were tried. A very great many people, who are as far from being Reds as anybody can be, felt that this bit of

RADIO DEPARTMENT

BUILDING A SIX-TUBE TRUPHONIC RADIO SET

Receiver embodies the latest practices in amplifiers and will deliver exceptional quality when connected to a loud-speaker

By W. F. CROSBY

THE steady but constant improvement in radio sets is not alone confined to factory-built receivers, and at the present time many of the manufacturers who make a specialty of radio parts are bringing out instruments which not only add to the home-made receiver, but actually give to it the appearance of a factory-made set.

The latest device in this field consists of a little, metal box about a foot long and two inches square. The top of this box is made of molded material, and sockets for the vacuum-tubes are arranged upon this in such a way that, when the set is completed, the six tubes stand in a row, adding considerably to the appearance of the receiver. These sockets are designed for the later types of tubes, the UX or CX tubes, in which the prongs of the

base have been lengthened, and two of them, the filament terminals, are made considerably larger in diameter than the other two in order that, when the tube is put into position, there will be no danger of a short circuit which might damage the tube.

These sockets, on this particular amplifier, will not take the older types of tube bases for the simple reason that the spring contacts are so stiff that the tubes will not stay in the sockets, and therefore it is more advisable to use the new base tubes. They are no more expensive than the older type and have the advantage of a positive contact that will go a long way toward cutting down noises which might be caused by poor connections.

As stated before, the set uses six tubes, two stages of tuned radio-frequency amplification, detector, and

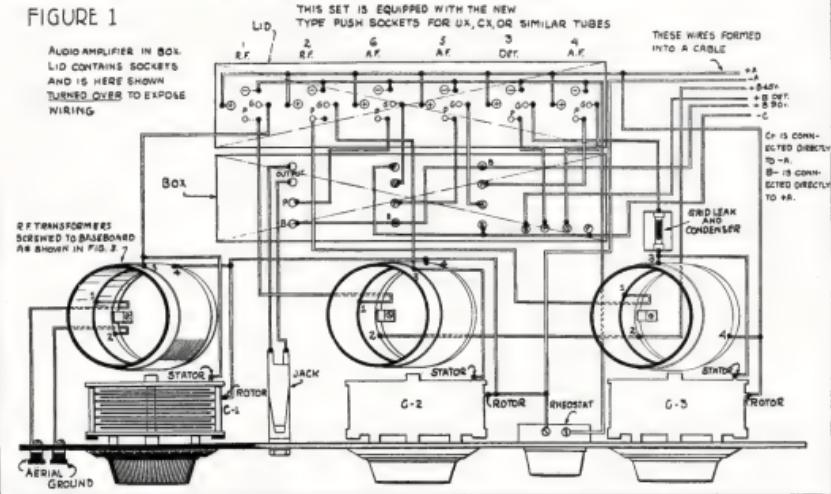
three stages of audio amplification. This arrangement will give a set capable of transmitting a tremendous signal to the loud-speaker if necessary; yet it can be cut down, by means of the rheostat, to a mere whisper. The amplifier is also equipped with an output transformer which does a lot to prevent rattles in the loud-speaker and incidentally improves the quality of received music to no small extent.

ARRANGING THE PARTS

The set should be built on a composition panel twenty-four inches long and seven inches high, with a wooden base-board slightly less in length and of about seven inches in depth, that is, from the panel to its rear edge.

This base-board is screwed to the bottom edge of the panel by means of three or four long brass wood-screws

FIGURE 1



which pass through the panel and into the edge of the base-board. But before this is done, the panel should be laid out so that the parts will form a symmetrical arrangement.

In the exact center of the panel drill a hole for the shaft of the center variable condenser, and then, equidistant on each side of it, drill holes

position on the base-board and the next step is to make and place the three coils or radio-frequency transformers.

These are of the usual construction, and are designed for .00035 microfarad condensers. Figure 3 shows their construction clearly, and needs but little explanation. The winding

material being left for this purpose as the metal should not touch the wire even though it is insulated. The three coils may next be screwed in place as shown in Figure 1.

WIRING THE SET

THIS set should be wired throughout with heavy rubber-covered wire,

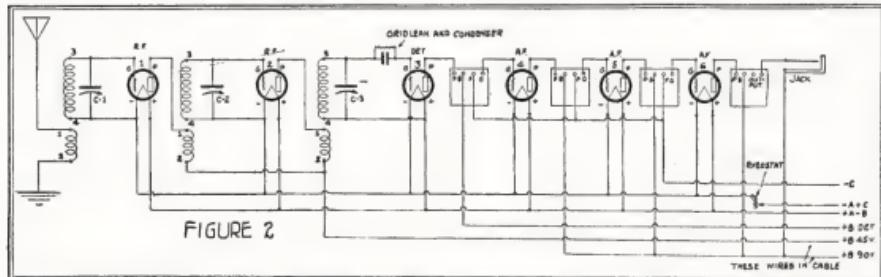


FIGURE 2

THE TERMINALS IN THIS WIRING PLAN CORRESPOND WITH THOSE IN THE OTHER DRAWINGS AND WILL AID YOU WHILE WORKING. ALL THE BATTERY-TERMINALS IN THIS SET COME OUT IN A CABLE.

for the shafts of the other two variable condensers. The holes for the machine-screws for these condensers may be arranged about the shaft-holes at their proper distances, but since no two makes of condensers have holes spaced equally, it is impossible to give any dimensions for this work. However, most modern instruments have paper templates packed with them, and these will give you the exact locations of these holes.

Facing the front of the panel, in the upper left-hand corner, drill two holes for binding-posts for the aerial and ground, and exactly between the first and center condensers a hole is made for the jack for the loud-speaker. This is, of course, placed down lower than the holes for the condenser shafts.

A jack of this sort takes a rather large hole, and some of you may have trouble in drilling it, but by first drilling a small hole, and then placing a small, flat file in the drill-chuck, it is possible with this to ream out the hole until it is large enough to take the jack. The same method may be used to enlarge holes about the shafts of condensers and other instruments.

A six ohm rheostat is placed between the center and right-hand condensers with its knob at the same height above the bottom of the panel as the jack. This is all the work necessary on the panel, except for the holes for wood-screws near the bottom edge by which the base-board is held in place.

THE COILS

WITH everything in place on the panel, it may now be screwed in

forms are three inches in diameter, and each is wound with about fifty-five turns of number twenty-two wire, insulated of course. At the lower end of this coil and inside of it, another and slightly smaller tube is wound with nine turns of the same wire, and then slid up into position as shown by the dotted lines in Figure 3. This smaller coil is the primary and the larger one is the secondary.

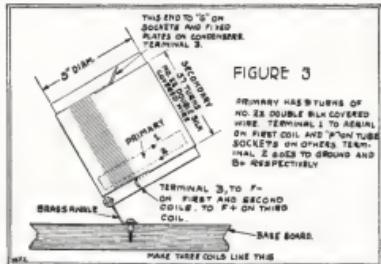
It is absolutely necessary that the windings on the secondaries travel in the same direction as those of the primaries, and unless this is done the set will not work. Make sure of this point.

You will note in Figure 3 that the ends of the wires are numbered from one to four. These are quite important, and by looking at Figures 1 and 2 you will see that the coil terminals have been numbered also, so that you may have no difficulty in getting the proper wire at the correct terminal.

Three coils such as shown in Figure 3 are made and each is set at about the angle shown by means of a small brass clip which you can easily make by cutting up some light spring brass and drilling holes in each end. One of these holes takes a wood-screw which is driven into the base-board while the other hole is used for a small machine-screw and nut which is put through the lower edge of the winding form, enough

stranded wire will do very well if properly insulated. The first step in wiring is to remove the lid or cover from the box containing the amplifier units so that you can get at the under side of the sockets. The job here is not an easy one at first, but you should be able to do it properly if you have patience.

By looking at the under side of the



THIS SHOWS CLEARLY HOW THE COIL IS MADE AND ALSO HOW IT IS SECURED TO THE BASE BOARD. IT IS SET AT AN ANGLE TO PREVENT WHISTLING

composition strip on which the sockets are mounted, you will see that the actual connections are made slightly to one side of each contact for the tube as shown in Figure 1. You will also note that two of the holes are larger than the other two and these should be followed exactly as shown in the drawing or trouble may result.

The filament wires should be run in first. The A-battery positive circuit is soldered to each lug on each socket as shown, and the end is connected to the A-battery positive wire, which is

in the battery-cable that comes with the amplifier. A lead must also be taken from this same wire which will later on be connected to the terminal marked 4 on the right-hand radio-frequency coil. However, this connection cannot be made until all the wires in the amplifier are in place and the lid is once more screwed down.

The negative filament or A-battery wire is run in to the remaining terminal lug on each socket, and the end is brought out so that it can be run to one side of the rheostat later on. These extra pieces should be made plenty long enough so that no extra lengths will have to be soldered later on.

The real wiring of the set now begins. The "G" or grid post of the first socket has a piece of wire soldered to it and, in order to tell what it is after the lid is screwed down, this wire should have a kink put in the end and also all other grid-wires from this point on.

A wire is also connected to the "P" or plate of this socket and run out ready to be connected later on. The same thing is done with the second tube and then we skip over to the detector tube numbered 3 and the next to the last on the right in Figure 1. The "G" of this tube has a wire attached to it, and this is left long enough to run to the grid-leak and condenser.

The "P" or plate terminal is connected to the "P" terminal of the amplifier unit in the box, the unit on the right-hand side and the "B" on this same unit is connected to the wire in the cable which is marked positive "B" (dectector). "G" on this unit is then connected to the "G" post on the socket on the extreme right and "P" of this same tube is wired over to the terminal marked "P" on the next audio unit to the left. The "F" terminal on the right-hand amplifier unit is connected to the "F" terminal on the other two units and the end is wired to the C-battery negative lead in the cable.

The rest of the audio circuit is simple repetition until we come to the last unit which is a transformer used to prevent distortion. The output of the last amplifier tube is wired to this transformer and the remaining two terminals are connected with flexible wires which will later on be connected to the jack on the panel.

With every wire in place, the lid may be put back and screwed down, but before doing this make certain that the wires underneath the lid, those you have just put in, are all soldered tightly, and that there will be no chance for two wires without in-

sulation to come into contact. It is best to scrape just as little insulation off as possible when making the connections in this box. It is also advisable to see to it that the wires where the tube prongs will be are sufficiently slack to prevent the prongs from catching in them or

to the negative side of the A-battery circuit. Terminal 2 on the middle and right-hand coils are connected together and thence to the positive B-battery, 45-volt cable. Terminal 1 and 2 on the first coil, the one on the left, are connected as shown to the aerial and ground binding-posts. Terminal 4 on the right-hand coil is connected to the rotor plates of the right-hand variable condenser and also to the positive side of the A-battery wiring.

The wires coming from the amplifier box for the A-battery negative side are now connected to the rheostat and the two wires which come from the output transformer are soldered to the single-circuit jack on the panel. By checking over Figures 1 and 2 you can be certain that every wire is in place. A good way is to mark off each wire on the drawing as you put it in. Running a wavy red line through these wires will aid you in checking up.

Figure 4 shows clearly how the other end of the battery cable is connected to the various batteries. Of course regular storage battery tubes should be used, but if necessary dry cell tubes of the 199 type will fit the same sockets; that is the new UX type of base comes on both storage or dry cell tubes.

The set requires a regular outside antenna of anywhere from fifty to a hundred feet in length, and the usual ground.

THE LIST OF PARTS

ONE panel twenty-four by seven inches. (Bakelite or hard rubber)

Three .00035 microfarad variable condensers and dials.

One single-circuit jack. (Frost or equal)

One six-ohm rheostat. (Pacent, Carter, or equal)

Two binding-posts. (Eby or equal)

One grid-leak, 1 to 3 megohms. (Lynch or equal)

One grid-condenser .00025 microfarad. (Micadon or equal)

Three coils as specified using about $\frac{1}{4}$ pounds of wire.

One amplifier unit and sockets combined. (Alden Manufacturing Co. "Truphonic")

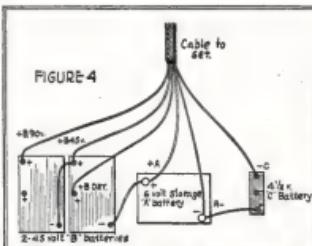
Six UX-201-A or equal tubes.

Two 45-volt B-batteries. (Burgess or equal)

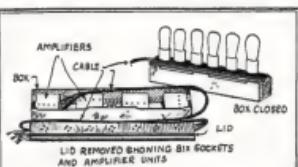
One six-volt storage A-battery. (Any good make)

One 4½ volt C-battery. (Burgess or equal)

Base-board, loud-speaker, aerial and ground system, cabinet, rubber-covered wire for wiring set, plug for loud-speaker, jack, etc.



THE OTHER END OF THE BATTERY CABLE IS CONNECTED AS SHOWN, EACH WIRE IS EQUIPPED WITH A METAL CLIP INDICATING WHERE IT IS TO GO



TWO VIEWS OF THE AMPLIFIER-AND-SOCKET-UNIT. THE UPPER WITH THE TUBES IN PLACE AND THE LOWER WITH THE LID REMOVED SHOWING THE AMPLIFIER-UNITS INSIDE

causing them to become loosened.

The wire, coming from the side of this box (it was connected to the grid of the first tube), is now connected to the post marked 3 on the left-hand radio-frequency transformer. The plate of this first tube has its post wired over to the terminal 1 on the center radio-frequency transformer and the terminal 3 on this same transformer is connected to the G post of the second socket from the left. The plate of this tube goes over to the post 1 on the third or right-hand radio transformer, and the terminal 3 on this one goes to one side of the grid-leak and condenser and thence to the "G" post on the detector socket, tube number 3, but fifth from the left in Figure 1.

Each of the terminals marked 3 on the radio transformers has a wire running from it to the stator plates of each of the variable condensers. Terminal 4 on each coil is wired to the rotary plates of each condenser, and the first and second transformers or coils have their terminals 4 connected together and a wire leading from here

The St. Nicholas Quiz

II

FOR those whose wits need sharpening in vacation-time, here is a second instalment of questions. The answers, if needed, may be had upon application to the "Question and Answer Department of ST. NICHOLAS." With your request, enclose a two-cent stamp and the list will be sent free. Write your name and address clearly!

Here are the questions:

1. Name the major planets.....
2. Is ten o'clock daylight-saving time nine or eleven o'clock Eastern standard time?.....
3. What President of the United States refused to attend the inauguration of his successor?.....
4. What President of the United States first sponsored the Limitation of Armaments?.....
5. Is the House of Representatives larger or smaller than the Senate?.....
6. What have the following in common: George Bellows, John Singer Sargent, J. A. M. Whistler?.....
7. Where did Lindbergh land in Paris?.....
8. For what are Wilbur and Orville Wright best known?.....
9. How many States were there in the Union in 1790?.....
10. Who was the first man to fly across the Atlantic?.....
11. Where is America's Tomb of the Unknown Soldier?.....
12. Which State has the largest population?.....
13. In what State is Appomattox?.....
14. Which is the "Cotton State"?.....
15. Which of the last five Presidents of the United States was graduated from Yale?..... Harvard?..... Princeton?.....
16. For what feat is Commander Byrd noted?.....
17. On what football team did the "Four Horsemen" play?.....
18. What have the following in common: Devereux Milburn, L. L. Lacy, J. Watson Webb?.....
19. What is the Stanley Cup?.....
20. Who is in command of the American forces now in China?.....

!!!The St. Nicholas Quiz !!!

21. What is the name of our naval officers' training-school?
22. What ancient Roman became famous for his defense of a bridge?
23. In what country is Waterloo?
24. Who shot Abraham Lincoln?
25. Name the Great Lakes.
26. In what country is the Rock of Gibraltar?
27. Which is the smallest continent in the world?
28. Is Guatemala in North, Central, or South America?
29. Where and what is Saskatchewan?
30. On what continent is the larger part of Siberia?
31. What color is an emerald?
32. For what mineral was there a great "rush" in 1848?
33. What color is the head of a canvasback duck?
34. Is a brant a member of the snipe family?
35. What kind of a motor did Lindbergh have?
36. The flag of what country has an elephant on it?
37. The French flag has three colors: What are they? Are they in horizontal or vertical stripes?
38. Is a python poisonous?
39. Is the Bengal tiger the "King of the Beasts"?
40. Do crows sleep at night?
41. What is the salary of the President of the United States?
42. What is the difference in time between Paris and New York?
43. What have the following in common: Doherty, McLaughlin, R. Norris Williams?
44. What great general of the World War is now President of Germany?
45. Are Facists Bolsheviks (yes or no)?
46. What body of water borders the north shore of Long Island?
47. What height has been attained in a balloon?
48. Was Hector a Greek or a Trojan?
49. Who is the discoverer of the South Pole?
50. What god presided over the Delphi oracle?



THE ST. NICHOLAS LEAGUE



A HEADING FOR JULY. BY HELEN GRACE FINGER, AGE 14. (HONOR MEMBER. CASH AWARD \$2)

OUR Honor Members are filling our pages with fresh and original contributions. The privilege of choosing their own sub-

jects is acting as a great stimulant and wide is the variety of themes treated. The additional rewards, too, may be

THE WINDING ROAD BY MARY SAUNDERS HAWLING (AGE 16) (Honor Member. Second Cash Award, Three Dollars)

I KNOW a road, a winding road,
That hurries on its way
From velvet night, with stars agleam,
Into a joyous day.

A road that's fringed with leafing trees
Against a cloudless sky;
A road that has a scent of pine,
A spring breeze rushing by.

A little road, a golden road,
A road that sings a song;
A road that lifts an eager heart,
And beckons me along.

A little road, a winding road
Where many feet have trod—
A road that leads through valley-land,
And climbs the hills to God.

A PATRIOT'S CREED BY MARY A. HURD (AGE 17) (Honor Member. Cash Award, Two Dollars)

I BELIEVE in the United States of America.

I believe that my country is the greatest nation in the world, therefore:

I believe that upon her rests the heaviest

responsibility which must be borne by any country.

I believe that she can discharge this responsibility worthily.

I believe that America is too proud to remain isolated, because:

I believe that she realizes that the wealth of great possessions is as nothing when compared with the riches of a royal soul.

I believe that the United States will take her rightful place among her sister nations as the leader of the world, and—

I believe that her leadership will be, not toward militarism, but toward peace.

I believe that, as a citizen of these United States, it is not only my solemn duty, but also my glorious privilege, to spread abroad among my fellow-citizens the doctrine of internationalism, which is only a new name for brotherhood. Above all—

I believe that those who died at Lexington, and at Gettysburg, and at Château-Thierry, have not died in vain.

I believe that America will carry on!

PATHS OF THE SEA BY RUTH BRANNING (AGE 16) (Honor Member. Cash Award, Two Dollars)

Paths of the sea, where are you leading?
Slender, blue fingers that beckon me on:
There in the distance my homeland receding;

Far in the future the land of the dawn.

encouraging. One of our Canadian pages easily qualifies for the third cashaward with her fine poem on Gallipoli. A number also appear with "second award" after their names.

Choosing subjects for League competitions is difficult. This may sound strange, but it is true, for we must offer suggestions that will bring in a generous range of contributions. A "narrow" subject will invite repetition; a "broad" subject, a wealth of different material. We are eager to afford our League members the best encouragement possible, and, perhaps, in the membership itself there are more fresh ideas and suggestions than in any like group, anywhere. If so, let us have them! We shall probably not be able to make any printed acknowledgment of the assistance, for our space is already so limited, but it will be appreciated nevertheless—and, after all, the success of THE LEAGUE is our chief desire!

Paths to the lands of adventure and wonder,

Carry me onward and on evermore,
Break down the buttresses, tearing asunder

The long line of rocks standing guard
By the shore.

Magic at night with the starshine above you,

Beautiful always, enchantress of men,
Paths of the sea, though dearly I love you,
Turn back and carry me home once again!

A FRIEND

BY CONSTANCE R. PULTZ (AGE 13) (Honor Member. Second Cash Award, Three Dollars)

"DAD," cried Ted Harlowe, coming into the living-room of the small Swiss mountain-cottage, "Dad, may I take Tricks and go up Mount Berno this morning? Peter says the snow is just right, and he'll go with me."

Mr. Harlowe looked up from the paper he was reading and, after contemplating his son for a moment, said: "Are you sure you can manage those skis, Son? They look treacherous to me."

"Oh, no, they are n't really, Dad. Why they're as easy as easy!" returned Ted eagerly, "and I'll be careful!"

"Well," answered his father, "I suppose you may go then; Peter seems to be quite capable, but be careful," and with that he once more retired behind his paper.



BY AUGUSTA E. HARR, AGE 14. (SILVER BADGE)



TAKEN ON A HIKE

BY HORTENSE CLARK, AGE 11

With a whoop of joy, Ted dashed out of the room.

After packing his lunch, he started off with Tricks, his clever St. Bernard dog, and Peter, a mountain lad. The boys and the dog traveled up the mountain for about two hours. When they reached the top, the three were ravenously hungry and enjoyed the lunch Ted had brought. After satisfying their appetites, Ted suggested returning home as he did not wish to be late for supper, and Peter readily agreed, so they started down the mountain—Tricks bounding on ahead.

When they had almost reached the bottom, Ted's ski caught in a lump of ice and he plunged head first into the snow and was lost to view!

Peter stood looking stupidly at the spot where his friend had been standing, but did nothing to aid him, his mind not comprehending the sudden disappearance of Ted. However, Tricks was on the scene and seeing something was wrong, sniffed inquiringly at the snow. Then he began to dig and kept it up until finally, after much difficulty, Ted was extricated from the snowbank. He was unconscious, but was soon revived and, with the aid of Peter, managed to get home.

That night while sitting by the fire, Ted fondly caressed faithful Tricks and said: "Good old Tricks, if it hadn't been for you, I might still be under that snow; you surely proved yourself a friend worth having." And Tricks, sensing what was being said about him, wriggled joyfully, and affectionately licked his master's hand.



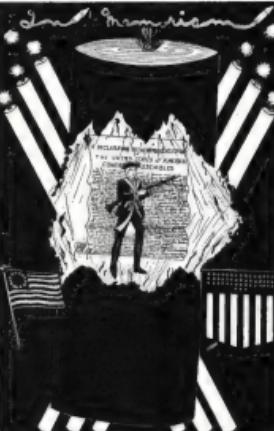
SKETCH OF TWO BOYS. BY CONSTANCE ROBINSON, AGE 14. (MEMBER CASH AWARD '22)

OUR BEST CELEBRATION (A True Story)

BY BELEITA BEDFORD (AGE 15)
(Gold Badge. Silver Badge won May, 1927)
One cold, cloudy morning in 1918 I was walking along the lower road of bungalow-town, Shoreham-by-Sea (a little seaside village in England where we went to live to get away from the air-raids in London), when suddenly bells began to ring, hooters hooted, and cannons were fired off.

I was so frightened I could not move, as I did not know what had happened, but a woman came out of one of the houses along the road, and I asked her what it was all about. "I expect peace has been declared," she said, "as there has been a lot of talk about it lately."

I did n't wait to say "thank you," or



A HEADING FOR JULY. BY MARIA M. COKE, AGE 14
(GOLD BADGE. SILVER BADGE WON OCTOBER, 1926)

anything. I just ran as fast as my legs would carry me until I got home; then I burst into the house shouting, "Peace is declared, the war is over!"

When Mother and I rushed over to the town to buy flags, and cakes, and things, it had begun to rain, but nobody seemed to mind it. Everybody was smiling and happy for they were so glad that the war, which had raged for four long years, was over. Yes! I think the day when we celebrated the Armistice was "Our Best Celebration."

A PATHWAY ON THE SEA

(Genius whispers to Columbus)

BY RICHARD M. FOX (AGE 15)
(Honor Member. Cash Award, Two Dollars)

YONDER, O my son, lies glory,
Yonder o'er the trackless sea.
See, the last departing lances of the dying,
Crimson sun
Dart across the emerald heavens
From the edge
Of sea and sky.
Follow thou that brilliant pathway
In thy chubby, square-sailed ships;
Follow thou
And find new kingdoms.
Up! explore
The pathless sea!

Rouse thyself, my child,
And go thou—blaze a pathway
On the sea;
Lead the hardy to new empires;
Follow thou
The golden sun!

OUR BEST CELEBRATION

BY LUCILLE REID (AGE 13)
(Silver Badge)

"I WONDER when Dad and Mother are coming home!" exclaimed Bob. "I want Dad to take us for a spin in the plane. We can shoot off some compressed lighting and electric aerial-bulbs."

"Oh, yes! No one can say that the

Langdons failed to celebrate the Fourth of July, 1957?" agreed his sister, Helen.

"Let's take John with us. Dad won't mind; it's not quite seventy-five miles to his house. We can do it in a half-hour."

"Yes, and we'll stop for Doris, too," replied Helen. "I'll go television with them."

A few minutes later she returned saying, "They can both go. Doris showed me a new flying-suit she just bought. It's darling!"

"Let's go up on the roof and watch for Dad and Mother," suggested Bob, not much interested in girls' clothes. "It's about time they were due."

"Yes, indeed, for their friend's plane flew for Paris about an hour ago and New York's only short trip from here," said Helen.

"Say, is it that the plane now? That red-white-and-blue bow I tied on the front sure looks fine!" said Bob.

Just then a Chevrolet Flyabout, with a rumble-seat, landed on the roof and Mr. and Mrs. Langdon stepped out.

"Mow," begged Bob, when she had removed her flying-cap, "may we go on a picnic this afternoon?"

"Why, yes," replied Mrs. Langdon. "I'll turn on the sandwich-maker and ice-cream freezer at once!"

"Look what I got for you," cried Mr. Langdon, displaying a box of "star-chasers" and "distilled-electricity bombs."

That night, when they returned from the picnic, Helen exclaimed:

"My, we had a fine time! Niagara Falls is just a nice fly from Albany and the fireworks were beautiful. I think it has been our best celebration!"

The rest of the family agreed.

GALLIPOLI

BY SALLIE CARTER (AGE 16)
(Honor Member. Third Cash Award, Five Dollars)

A NARROW beach of golden sand
Washed by a languid sea,
Some creamy foam along the strand,
This is Gallipoli.

A lonely shore, where barren heights
Rise steeply 'gainst the sky;
And endless silent days and nights
Slip unevenly by.

The earth is scarred and seared by war,
But the thund'ring guns are still,
And the peace of death for evermore
Lies on each silent hill.

A hopeless cause, yet glorified
By those brave men and true,
Who nobly fought and nobly died
Beneath that sky of blue.

Do not forget that Turkish shore,
Or those who failed so well,
For tho' the danger long is o'er
It was for you they fell.



TAKEN ON A HIKE. BY AVERY PHILLIPS, AGE 11
(GOLD BADGE. SILVER BADGE WON APRIL, 1927)

OUR BEST CELEBRATION

BY BETTY BROWN (AGE 12)

(Silver Badge)

It was very exciting to think of the next day, for Mother, whom we had not seen for two long months, was coming to Rhinebeek. She was going to bring a new baby sister, whom we'd never seen before, with her, too, so it was no wonder that we were nearly standing on our heads with excitement.

A garden-party had been planned for her and presents were to be given out, as it was my sister's birthday, too, and she would be seven years old.

Mother was to arrive on the one o'clock train from New York, which got to Rhinebeek at half-past three. Rosalie and I were going to meet her, but the children were too little, Grandma said. They didn't like that, but there was nothing to say in the matter, because what Grandma said was what we did. At three we put on our dresses and drove down to the station with Grandma, in the big car.

Finally Rosalie and I (we had been left in the car, while the others went down to the tracks) saw them coming. We rushed out to take a peep at the new baby. With a lot of talking, we all got into the car and drove home. When we got there the presents were all given out and Baby Jean got even more than the Birthday Girl. It was not as exciting as giving a reception for the President, or something like that, but it was delightful to see our mother again and our little sister and it really was "Our Best Celebration."

A HEADING FOR JULY

(Silver Badge)



BY DARSHI BARD, AGE 12. (SILVER BADGE)

Where a lacy coral bed
Points cool silver towers.
Anemone wave o'er thy head
Drifting purple flowers.
All the gods of strand or deep
Guard thy dreams throughout thy sleep.

OUR BEST CELEBRATION

BY ZETTA THOMAS (AGE 14)

(Silver Badge)

SEVERAL years ago, Dad was the American Consul to Syria. I was rather young, but was old enough to be thrilled by the thought of traveling. The event that stands out clearest in my memory is our first Fourth of July there.

About July second, I began to mourn the fact that in Syria there was no "Fourth."

"Not homesick, are you?" asked Mother, anxiously.

"Oh, dear, no!" I replied, hastily, "but it's so queer."

"Mmm!" said Dad, "should n't wonder—Fourth of July celebration—I have it!"

"What?"
"Remember the cat, Squeegie."

Whenever I was too curious, Dad always said that.

Of course, I half-expected them to do something, but the Fourth passed like any other day—until after dinner. When we had finished eating, Dad went to the window, and began to shine the pane. I gazed at him in amazement, but he skillfully changed the subject when I questioned him.

Suddenly, a shot rang out, then another and another. I ran to the window and looked out—we were surrounded by hostile Bedouins!

"Mother! Dad!" I screamed. "They will kill us!"

To my amazement, they both laughed. Suspiciously, I returned to the window, carefully studying the face of the nearest



A HEADING FOR JULY. BY JANE MACLEOD, AGE 14

SONG FOR A NEREID

BY HONOR C. MCCUSKER (AGE 17)

(Honor Member, Second Cash Award, Three Dollars)

SOFT thy bed of seaweed be
As the waves that rock thee;
Peace surround thee like the sea;
No rude dolphin mock thee.
Pale sea-grasses cover thee
With their silken broidery.

Ootopus with glaring eye
Through the shadows creeping,
Trouble not the caverns high
Where thou liest sleeping.
Crab and starfish, snail and shell,
By thy couch stand sentinel,

Bedouin. It was our native serving-man all dressed up.

"Was that window-wiping a signal?" I asked.

They laughed again, as they nodded. Then Dad picked me up and carried me to the porch, where we watched the rest of their maneuvers.

"How'd you like your fireworks this year, Squeegie?" asked Dad later, after I'd been "tucked in."

"It was the best," I murmured, sleepily, "but it scared me awfully at first."

THE PATHS OF THE SEA

BY E. ROMNEY WHEELER (AGE 16)

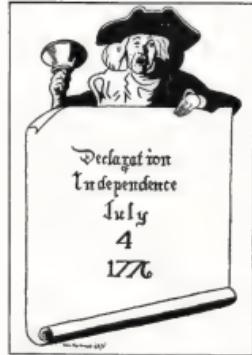
(Honor Member, Cash Award, Two Dollars)

WE who go down to the sea in ships,
To follow the rolling blue,
Adventure and riches lie among,
The paths that are ever new.

And many the ships that plow the brine,
Aye, more than the drops of rain,
Pushed to and fro by the eager hands,
Of the trades that span the main.

And many the unknown ports are found,
Where the rusty freighters call.
For the trails of the sea lead everywhere,
To harbors, both great and small.

The paths of the sea lead far and wide,
Though never a one is seen.
And many ships that have not reached
port,
Have died on that trail of green.



A HEADING FOR JULY. BY ASIO MARTINELLI, AGE 13. (GOLD BADGE. SILVER BADGE WON OCTOBER, 1926)

Aye, we have sailed the seven seas,

From London to quaint Bombay,
Battered and buffeted by the winds,
The winds that can never stay.

We know the ways of the Viking trail,
And have heard the sea gods roar.
The winds and waters have sung us songs,
As never man heard before.

PATHS OF THE SEA

BY EILEEN SURLES (AGE 14)

(Silver Badge)

THE moonlight, pale moonlight, beautiful moonlight,
Glimmers in paths on the water,
Dark, black water in the night-time.



BY WOODBURY PERKINS, AGE 11



BY RUTH LYMAN, AGE 17. (SILVER BADGE)



BY HELEN MCINDOE, AGE 13

The moon is low in the sky
Its full round yellow face,
With its flickering paths of reflection
Binding it fast to the earth-world,
Is still hanging, poised, o'er the sea.
What slender threads bind so fast?
What weave such a spell of enchantment
As to bring it again every evening?

And now—a ship, a ship with all sails to
the breeze;
Is crossing the moon's smiling visage;
Brought out in relief for a moment,
Skimming the paths of the sea
Only to vanish again, to vanish again—
and forever.

LOST

BY ELLINOR EUGENIA BRAMHALL (AGE 17)
(*Honor Member, Second Cash
Award, Three Dollars*)

JOAN sat rigidly straight, watching in eager suspense while Miss Ellsworth chalked up the votes. The eighth grade was in a high state of excitement over their farewell party and the election of a treasurer was of prime importance at the

moment. Jimmy Morgan and Joan Darwin were even, up to the last vote, which decided in favor of Joan.

She felt proudly important, next day, as she collected quarters in her colorful tin-box. Jimmy brought the first contribution.

"I voted for you, anyway," she told him, "and I'm sorry you did n't win."

"Oh, shucks, I did n't want to. I'd probably lose all the money, if I had the job," he replied.

Thereafter, Joan guarded the money anxiously in constant horror of losing it. She was tremendously relieved when the last coin had clinked into the box and it could be hidden away until wanted.

Though it was only the middle of June, the party was to be in keeping with Fourth of July. The class talked of patriotic games and red, white, and blue decorations. "Let's have red-and-white ice-cream," suggested Joan.

"And blue cakes," added Jimmy, to the merriment of the others.

As soon as Joan entered the house, that afternoon, she made straight for the library, where she had hidden the money.

Pulling out a certain book, she reached in and felt for the box. It was gone! She ran for a flash-light, and taking out books here and there, she frantically searched every shelf within reach. The money had vanished and not a trace could she find.

She crawled away in the window-seat behind the heavy, blue drapes, and buried her face in the big, orange pillow. Dismally, she wondered what would happen to her. Oh, she could n't face the class without the money!

Presently, her mother and father entered, talking about Father's business trip. Joan realized she was eavesdropping; she must let them know she was there. Reluctantly, she jumped up and stood forlornly by the window. The bronze ringlets were tousled and she looked down at the floor through wet lashes.

Her father, seeing her indistinctly against the light, only said: "Oh, I'm glad you turned up, Joan. I might have forgotten to tell you, before leaving, that I found your money-box in the bookcase and locked it up in my desk where it would be safe."



BY ALICE COLLINS, AGE 14

TAKEN ON A HIKE



BY REBECCA POTTER RITTER, AGE 12. (SILVER BADGE)

THE PATHS OF THE SEA

(A Viking Song)

BY ANNA T. LEHLBACH (AGE 15)
*(Gold Badge. Silver Badge won
December, 1926)*

WE Northmen are kings of the mighty waves!

Where'er the sea-gulls soar,
You see the tall prows of our dragon ships,
Our banners on the shore.

You hear our wild songs where the breakers crash,

The storm winds fill our sails;
The name of the Vikings is hurled by the blasts,

And we laugh into the gales!



BY MARJORIE FERGUSON, AGE 13. (SILVER BADGE)

The sea was our home when the world began;
The gift great Odin gave.
'Tis cradle and hearth to the Viking lad—
So shall it be his grave.

Our deeds have been sung in the halls of kings
Since waves have beat this shore;
And so shall the fame of the North be known.

'Till ships shall sail no more.

THE PATHS OF THE SEA

BY FRANCES ESTELLA ARMSTRONG (AGE 14)
*(Gold Badge. Silver Badge won
June, 1927)*

THERE

Where the sea
Plays in noisy mockery,
Where it lashes
And dashes
On some foreign coast—
There . . . is the
. . . green path of the sea.

And

Where it flings
Periwinkle shells, and sings,
Where it murmurs,
Ripples and shimmers,
Nestles on golden sands—
There . . . is the
. . . blue path of the sea.

But
Where it rages
At rocks gray with age
And throws up its billows that sting;
Where it challenges sky
With light veils hung high;
Where it thunders and calls,
Where its wild spray falls—
There . . . are the
. . . white paths of the sea.

OUR BEST CELEBRATION

BY JANE KIRK (AGE 14)

(Silver Badge)

On the fifth of July, 1776, a foaming horse raced into a little town in Pennsylvania, bearing on its back an exhausted mes-



BY LUCY F. JACOBY, AGE 14. (SILVER BADGE)

TAKEN ON A HIKE

cheers of the villagers, and Robert Fulton felt a thrill of pride because he had been able to serve his countrymen.

THE SEA-GULL

BY HELEN FISHER (AGE 15)
*(Honor Member. Cash Award,
Two Dollars)*

WINGS of white,
Glist'ning bright,
See the gull go dipping;
Beady eyes,
Screaming cries,
Flying 'mongst the shipping.

Sailor-bird,
You have heard
The rumble of the thunder;

BY MARGARET W. STRUBLE, AGE 15. (HONOR MEMBER
CASH AWARD \$2)

Seen the waves,
The storm-lit caves,
Where many a ship goes under.

You have seen
The frothy sheer
Of a wind-whipped, stormy sea;
And kissed the sun
On your high, wild run,
So bright and gay and free.

O, the flapping sail
And the white foam-trail,
These are the things for me;
But a storm-rid sea
Is life to thee,
O, gull so wild and free.



A HEADING FOR JULY. BY KATHERINE WADE CHURCHILL, AGE 15. (SILVER BADGE)

THE LETTER-BOX

ST. NICHOLAS readers are more interested in the contents of story or article than in the author, but this July issue brings to our pages the names of a number of interesting people, and a word about them will not be amiss.

Lowell Thomas, whose "White King of the Arabs" leads off the number, is a distinguished author, lecturer, and, as he says, the "discoverer" of Lawrence, in the sense of bringing him and his remarkable exploits to the attention of Americans. Thomas' book, "With Lawrence in Arabia," is a fascinating piece of writing, much like this "Boys" Life of Lawrence, which he is giving St. Nicholas readers, though a great deal longer and more detailed. When you have finished these instalments, look into the longer tale for more of the same thrills and adventure.

David Lawrence may belong to the same family as the Colonel. He is as famous, in his way, though his ways are with the pen rather than the sword. And no one who has read his magazine articles, newspaper reports, and his own daily, published in Washington, can doubt how effectively he wielded it. David Lawrence was a student in Princeton when Woodrow Wilson was president of "Old Nassau." When Mr. Wilson was President of the United States, Mr. Lawrence was one of the few correspondents who shared his full confidence, and he was also one of a select group to go to Paris for the Peace Conference.

Perhaps the best thing that can be said for him, however, is that he read ST. NICHOLAS when he was a boy. Of such stuff are great men made!

Lindbergh has proved that "Pluck Wins for Aviation," so our article is far more timely than we imagined it would be when we first set it into pages.

Lord Burghley lost his 440-yard race to an American, but he won the regard of the men in competition at the Penn Relays Games. His sportsmanship was that expected of Englishmen, whether noble or commoner, and in his case the title which he bears was first conferred upon an ancestor who served Queen Elizabeth as Treasurer of the Realm. We are in luck to have an interview from him, and we hope that when he comes again he may win individual honors, as well as captain his relay-team to another victory.

Derk Bodde needs no introduction to St. Nicholas readers for he has contributed several articles to our pages, notably his "My Houseboat Trip in China," published in January, 1925, and "Thundering Waters" in January, 1927. Mr. Bodde is now a student at Harvard University. In response to our request for facts about his life in China he wrote:

"We left for China from Boston in 1919 on the first anniversary of the Armistice, going by way of San Francisco. In China we lived for almost three years, returning to America by the Suez Canal in the summer of 1922. While in China, my father taught electrical engineering at Nanjing College, in Shanghai, the largest college in China. It is a college for Chinese, and is supported by the Northern or Peking Government. It was forced to close in February of this year, due to the revolutionary troubles. When it closed there were only two American professors there, while when we were there, there were seven. This is an interesting illustration of the way in which Chinese educated in America or Europe have replaced foreigners in China in the last few years."

DEAR ST. NICHOLAS: During Lent I wanted to give up something I had never done before; also something I would not like to give up. ST. NICK, I gave up you! It was the only thing I could think of that would really hurt to give up, and it certainly did. As I have taken you for over four years, and I can't remember a single story I read in your numbers that I didn't like, you can imagine how I felt when I saw your March number put away until after Lent was over.

The picture I am enclosing is one that was taken when I was going to Catalina



THE BREAKWATER AND LIGHTHOUSE OF LOS ANGELES HARBOR

last Easter. It is of the breakwater and lighthouse of the Los Angeles harbor, Wilmington. The dark ship coming toward the camera is one of the U. S. battleship fleet which was in Wilmington at the time.

My home is in a crescent-shaped valley from which the town gets its name, La Crescenta. To the south, about half a mile away, are the Verdugo Hills of which John Steven McGroarty writes about. La Crescenta is often called the "Switzerland of America" for its wonderful climate and its fame as a health resort. To the north, about three miles away, are a portion of the Sierra Madre Mountains. These are much higher than the Verdugo Hills, but they are not so green and pretty.

I have a lovely old dog, a Llewellyn setter, who had his picture published in the January, 1926, number. My mother says the picture was published not because of the good photography, but because he was such a good-looking dog. I also have a black Angora cat and a parrot.

May you all have the luck in the world and, if it is possible you have n't, I think my name is Irish enough to let me supply you with some of the famous "luck o' the Irish."

Your devoted fan,
MARGARET LURA O'BRIEN (AGE 14).

DEAR ST. NICHOLAS: I just had to write and tell you I love you. I've only had you for five months now, but I have old copies of you that Dad had when he was a boy and I pore over them.

We live in Florence, Italy. It is a lovely city, with loads of monuments of old sculptors and paintings of famous

masters. We live in an old palace that belonged to the Antinori family and it was built before America was discovered.

They have no games here like baseball or basket-ball, but I go horse-back riding a good deal, and I fence, which is great fun. In the summer we have wonderful swimming in the Mediterranean—we have a lovely villa on the Italian Riviera. Last spring we went to Holland for a few months and we simply adored it. They all have such sweet costumes there, and everything is so clean. It is very interesting and when you walk on the dikes you see the land is much lower than the sea on the other side of you. The peasants have built little mounds of earth for them and the cattle to go up if the dikes break. Coming home (we came on a steamer) we went around Belgium, France, Portugal, and Spain, stopping at Southampton, Algiers, and getting off at Genoa. It was a perfectly wonderful trip, but we were glad to get home, where it doesn't rain so much!

I love "Chuck Blue of Sterling" and "Treasure-Trove," but I do wish you'd come oftener.

Wishing you the best of success, I am,
Ever your loving reader,
MARJORIE FERGUSON (AGE 13).

SONGDO, KOREA.

DEAR ST. NICHOLAS: I have been one of your subscribers for only about a year and a half, though my brother took you for several years before that. I didn't send you money until the last few months, but now I am very much interested in three serial stories: THE STAMP PAGES, THE RIDDLE-BOX, THE LETTER-BOX, and THE ST. NICHOLAS LEAGUE.

I suppose you would like to know why, and how, I am so far away from my native country.

My father is a missionary working under the Board of Missions of the Methodist Church, South. He and my mother have been out here for about eighteen years. I was born here in Songdo in the house in which we lived until last year.

I suppose you would also like to know something about Korea.

The Koreans live in low, thatch-roofed houses the bases of which are made of small stones stuck together with clay. The upper walls are lathed with sticks wrapped with straw rope or "sackie," and are plastered with a mixture of clay and mud. The houses usually have a small porch or "marru" in front. The floors are heated by channels underneath them. A fire is built at the end of the channel and in a few minutes the heat goes to all parts of the house. The floor just above the source of the fire is exceedingly hot. The floor has several layers. First they put stones as a sort of foundation. Then comes some very coarse oil-paper. Next they put some very strong Korean paper. The top layer is nice paper pasted very smoothly to the lower layers.

There is hardly any ventilation in the Korean rooms. They sometimes have small windows, but they are mostly to let light in. The Koreans stay outside most of the time, except at night, so they do not need much ventilation and light in their rooms.

Here the missionaries have good, comfortable, granite houses which are owned by the mission. We also have a little foreign school of fourteen pupils and one teacher.

If you want to know any more about Korea, I will do my best to inform you correctly.

Wishing you all success in the future and complimenting you for your efficient service in the past, I remain,

Your loyal reader,
BEN B. WEEMS.

EAST RIVER, CONN.

DEAR ST. NICHOLAS: I have taken you for almost five years now, but never before have I written and expressed my love for you. It is probably needless to say that you are the best magazine that I know. I can hardly wait to receive you each month.

I have an adorable little white Eskimo dog named Sonya. She is just the nicest little pet one could ever wish to have. As well as being pretty, she seems to understand just what one means.

My father is the publisher of two newspapers, and I hope to become associated with something of that sort when I finish my education.

I am hoping that you may have a great deal of success in the years to come.

NATALIE D. VAN LOON (AGE 14).

CONSTANTINOPLE, TURKEY.

DEAR ST. NICHOLAS: I just want to tell you what pleasure you give to me. I think the stories are wonderful and I enjoy THE LETTER-BOX so much.

I am an American, but I was born in Constantinople, Turkey and since then I have made nine trips to America. I have traveled all over Europe and I think the most interesting place is Constantinople where I live at present. I live about six miles from the city at Robert College. It is situated on a high hill and the foreground is the beautiful Bosphorus. The background consists of gentle slopes, on which flocks of sheep and goats pasture. We live on the European side of the Bos-

phorus and opposite us is the Asiatic shore. You can see even so far back and even Mt. Olympus, about seventy miles away, can be seen on a clear day.

The American families in our community send their children to a school in one of the college buildings. We have three American teachers and I am in the eighth grade this year. Several of my friends take you and are just as anxious for your arrival each month as I am.

I wish you the continued success which you so greatly deserve.

ELOIZETH SCPIO (AGE 12).

EAST ORANGE, N. J.

DEAR ST. NICHOLAS: I have taken you for four years and have found you so interesting I don't know what I should do without you. You may be sure I am very proud to have the honor of knowing the author of "Dorothaea's Double." I still remember the story and, when it came out in book-form, it was given to me for Christmas with her autograph on the fly-leaf. As soon as I got it, I read it over again.

Next to your wonderful stories, I like THE LETTER-BOX the best. I am a Girl Scout and share the same love for your outdoor stories such as "Camping in the Alaskan Wilderness," another of your readers, a Girl Guide from Marlow, England. I read her interesting letter in the March issue.

Some day I hope to join THE LEAGUE, which is one of the best parts of your magazine.

With many wishes for your success, I am,

Your devoted reader,
PHYLLIS PINDER.

HONOLULU, T. H.

DEAR ST. NICHOLAS: You have been a constant friend of mine for almost seven years. Sometimes I have subscribed

directly and other times I get you at the news-stands. At any rate, you can be sure that I don't miss a single copy. You first came to me at my home in the Philippines and now to me in Hawaii.

My parents are still in the Philippines and I am going home this summer, accompanied by you, too. Now I am boarding at Punaliou, which means, in Hawaiian, "new spring." It is said that one day an old Hawaiian woman unexpectedly found a spring on the ground that is now our campus. Later, some of the missionaries started a school on this spot and they named the school "Punaliou." Then there were only two or three tiny buildings, but now we have a great many buildings, a wonderful swimming-tank, tennis-courts, a large athletic-field, and the most romantic of all, a lily pond with an old stone-wall nearly covered with lovely bougainvillas.

The school has a spacious beach-house out at Kahola and there we frequently go for a week-end. When a bunch of us goes out to Kahola, we have more fun hiking, swimming, dancing, and playing all sorts of games, and also lying on the beach in the sun. Then too, we have such glorious "pennis" and marshmallow roasts out on the sand. Sometimes we serenade the neighboring houses with our ukus, an act which is n't always appreciated. There is at night the spectacular torch-fishing which is lovely on a dark, starry night, and we love to lie on the large porch, or *lau*, and watch the fishers.

You are helpful many times in my school-work, but I like you best for your good stories and THE LETTER-BOX. ST. NICHOLAS, you are my companion and chum—that's all I'll say. May good luck and prosperity always lie in your path.

Another devoted reader,

FRANCES GREENFIELD.

THE RIDDLE-BOX

NOVEL ZIGZAG

Take the first letter of the first word, the second letter of the second word, the first letter of the third word, the second letter of the fourth word, and so on. When rightly guessed, these fifteen letters will spell the name of a distinguished patriot.

1. To converse. 2. Slender. 3. A gem. 4. A sign. 5. Sour. 6. To catch a glimpse of. 7. A month. 8. A heavy metal. 9. A pretty roadside growth. 10. At a distance. 11. Rim. 12. Precise and formal. 13. Bartered. 14. Presently. 15. Dainty.

C. J. EARLE (AGE 16).

DOUBLE CROSS-WORD ENIGMA
(Gold Badge, St. NICHOLAS LEAGUE
Competition)

My firsts are in approach but not in retreat;
My seconds in realize but not in know;
My thirds are in proportion but not in adapt;
My fourths are in reckon but not in impute;
My fifths are in victory but not in defeat;
My sixths are in abate but not in diminish;

My sevenths are in esteem but not in abhor;

My eighths are in boorish but not in polite;

My ninths are in gruesome but not in gloomy;

My tenths are in tell but not in ask;

My elevenths are in locution but not in prattle;

My twelfths are in west but not in north;

My thirteenths are in yes but not in no.

My two wholes name two writers; one an American woman who wrote the "best seller" of 1859; the other an Englishman who wrote a lament for the early death of the poet Keats.

EDNA ZITA SUPPLEE (AGE 15).
(Silver Badge won in February, 1927.)

POSITIVES AND COMPARATIVES

EXAMPLE: Positive, to almost fall; comparative, a shoe. ANSWER: Slip; slipper.

1. Positive, to display; comparative, a fall of rain.

2. Positive, a baseball club; comparative, to give repeated blows.

3. Positive, to enumerate; comparative, a long table for merchandise.

4. Positive, discovered; comparative,

to fill with water and sink.

5. Positive, to caress; comparative, a sound made by rain.

6. Positive, a kind of meat; comparative, to pound.

7. Positive, to attack with vigor; comparative, a war-horse.

8. Positive, a name for a policeman; comparative, a metal.

9. Positive, a point of the compass; comparative, a spring festival.

10. Positive, to stop; comparative, a hangman's rope.

FRANCES CLARK (AGE 13).

OBLIQUE PUZZLE

In solving, follow the accompanying diagram, though the puzzle has eighteen cross-words.

CROSS-WORDS: 1.

In trusty. 2. To fasten. 3. A soldier's weapon. 4. An African antelope.

5. To bestow a permanent income upon. 6. Sorrow. 7. A lady. 8. Quick. 9. Salt peter. 10. Fright. 11. Relieves. 12. Small depressions. 13. To bend forward.

14. Pertaining to the sun. 15. A fine city.
16. Dangerous. 17. A long Norwegian
skate. 18. In trust.

WYLlys P. AMES (AGE 16).

HIDDEN NAMES OF GIRLS

- Do you remember that terrible accident?
- The lending of the plate caused its loss.
- He sternly forbade the man to use his car.
- Sir, may I help you repair the machine?
- "Honor and fame from no condition rise."
- If you may your polished table it will have to be repaired.
- If you visit France, Spain and Portugal are not far off.
- Do rabbits thrive in captivity?
- In Albert I never saw an undesirable trait.
- The silver bell enabled me to enter.

MARY COLLINS (AGE 11).

ANAGRAM WORD-SQUARE

Rearrange the letters in the following words to make four new words which will form a word-square:

TARA, PATE, KATE, EKES
HARRY S. BALDWIN (AGE 14).

DIAGONAL

All the words described contain the same number of letters. When rightly guessed and written one below another, the diagonal, beginning with the upper left-hand letter and ending with the lower right-hand letter, will spell the surname of a President.

CROSS-WORDS: 1. Impressive display.
2. Reticent. 3. Adieu. 4. Dislike. 5. Without curve or bend. 6. Antagonist.
7. To light again. 8. Made clean.

GRACE H. PARKER (AGE 15).

PRIMAL ACROSTIC

All the words described contain the same number of letters. When rightly guessed and written one below another, the initial letters will spell the surname of a popular author.

CROSS-WORDS: 1. A pattern. 2. Interested. 3. Flushed with delight. 4. A modest flower. 5. Sufficient. 6. A seaport on the Mediterranean. 7. A country of Europe. 8. A curious and beautiful flower. 9. The drink of the gods.

MARY DIXWELL CHASE (AGE 11).

ENDLESS CHAIN

To solve this puzzle, take the last two letters of the first word described to make the first two letters of the second word, and so on. The last two letters of the twentieth word will be the first two letters of the first word. The words are of unequal length.

CROSS-WORD ENIGMA. Flag Day. GEOGRAPHICAL. ENDLESS CHAIN. 1. America. 2. Canton. 3. Ontario. 4. Dallas. 9. Asiana. 10. Kansas. 15. Astrakhan.

ANAGRAM WORD-SQUARE. Show, top, eggs, wasp, metamorphosis. 1. Good, wood, wild, well. 2. Flow, slow, slow, stop. 3. Lack, lace, have, have. 4. Pink, pine, pose, pose. 5. Gone, gone, came, name. 6. Give, lake, lake, take.

TRIVIAL HERB. 6. Give, come, come. Memorial Day. 1. For-mation. 2. Sat-in-tur-er. 3. F-ro-mat-ic. 4. Opp-set-er. 5. Gus-tan-ee. 6. Aga-baggle. 11. Cra-yon-ist.

A FEW RIVERS. 1. Big Horn. 2. Cheyenne (shay-en). 3. Columbia. 4. Gila (she-lah). 5. Humboldt. 6. Indiana. 7. Roanoke (row-an oak).

A SCHOLAR'S ACROSTIC. Cross-words: 1. Chronicle. 2. Oligarchy. 3. Memorize. 4. Memorable. 5. Execution. 6. Negotiate. 7. Capacious. 8. Epoch. 9. Memorandum. 10. Exchange. 11. Testimony. 12. Testimony.

13. Denominator. 14. Apprehend. 15. Yellowish. 16. Satisfaction. Initials. Commencement Days. From 1 to 93, congratulations, diplomas, presents, graduation, class ring, excitement, happiness, friends, fellowships, memory.

CONNECTED DIAMONDS. I. S. but, sugar, tar, r. II. R, pal, races, let, s. III. R, pan, rakes, net, s. IV. S, east, east, east, east.

- A light metal, comparatively new.
- Shade. 3. To create. 4. A tortoise valued by epicures.
- Lifeless. 5. Very alarming. 7. An image-breaker.
- Artifice. 9. To bring out with force.
- The point in the heavens directly overhead. 11. The region of the chest.
- An adage. 13. A sign. 14. A diplomatic agent. 15. A popular bivalve.
- A white fur. 17. Not taking part on either side. 18. Foreign. 19. To attempt. 20. A crucial test.

VINCENT H. WHITNEY (AGE 13).

CENTRAL ACROSTIC



In this puzzle the words are pictured instead of described. When the nine objects have been rightly named and written one below another, the central letters, reading downward, will name a famous trapper and hunter.

DOUBLE BEHEADINGS AND DOUBLE CURTAILINGS

EXAMPLE: Doubly behead and doubly curtail to narrate, and leave an Italian river. ANSWER: Re-po-rt.

In the same way, doubly behead and doubly curtail:

- Indians, princes, and leave "yes" in German.
- Exhilarated, and leave a preposition.
- Certain Italians, and leave a mother.
- Mixed together, and leave a printer's measure.
- To drink in, and leave an adverb.
- A novel by Samuel Richardson, and leave a pronoun.
- An agent in Ireland) and leave an abbreviation for a New England state.

ANSWERS TO PUZZLES IN THE JUNE NUMBER

CUNNING "KATE." 1. Abdicate. 2. Communicate. 3. Complicate. 4. Decimate. 5. Delicate. 6. Duplicate. 7. Educate. 8. Indite. 9. Locate. 10. Suffocate.

NUMERICAL ENIGMA. Some folks are like rocking-chair,—full of motion without progress.

NAME ACROSTIC. Initials. Cicerone; fourth row, Pompey. Cross-words: Compel, idioms, common, clasp, repeat, obeyed.

KING'S MOVE PUZZLE. Begin at 3, Italy; Mussolini; 23, France; Poincaré; 36, England; Lady Astor; 18, United States; Coolidge.

POST CARD PUZZLE. To receive the magazine answers must be mailed not later than July 27 and should be addressed to ST. NICHOLAS RIDDLE-BOX, CARE OF THE CENTURY CO., 350 Fourth Avenue, New York City, N. Y.

Solver's guide to coming month's puzzles, with the "clear-cut" rules (see page 37) and a general index to all previous answers.

ANSWERS TO ALL THE PUZZLES IN THE APRIL NUMBER were duly received from Alfred Satterthwaite—Helen Melver—The Three R's—Alice Haas—Jane Oberly—Adelaide Rice—Jeanette Gibson—David E. Swift—S. Agnes Chapter—Marguerite Trivis—Pearl Miller—Catherine Ferris—Ross Miller—Joan B. Walker—Sabina Graybowhi—Agnes N. Rosier—Jane Stillman—Deborah Locke—Barbara Todd—Eleanor M. Burnham—Janet Leech—Eva L. Berman—Margarette Long.

8. The surname of a traitor in the Revolutionary War, and leave a negative.

9. To free from a troublesome obligation, and leave a printer's measure.

10. A great inventor, and leave a verb.

11. Fall fruit, and leave behold.

12. A French port, and leave an exclamation of surprise.

13. Shady retreats, and leave ourselves.

14. To stick, and leave a pronom.

15. To draw away from in fear, and leave within.

16. To classify, and leave thus.

17. Staffs of office, and leave toward.

18. To tell, and leave the abbreviation of a State.

19. Listened to, and leave a nickname.

20. An optical illusion, and leave the Egyptian sun god.

When these words have been rightly guessed, beheaded, and curtailed, the initials of the nineteen two-letter words will spell the name of an eccentric artist.

ALFRED SATTERTHWAITE (AGE 12).

A "SIGNERS" KING'S MOVE

1	2	3	4	5	6	7	8	9
C	H	O	N	A	R	S	N	M
10	11	12	13	14	15	16	17	18
A	R	S	L	H	R	I	O	O
19	20	21	22	23	24	25	26	27
S	E	F	E	I	R	R	L	
28	29	30	31	32	33	34	35	36
E	N	C	F	E	S	R	I	K
37	38	39	40	41	42	43	44	45
H	A	O	C	J	F	A	N	N
46	47	48	49	50	51	52	53	54
H	S	M	A	K	L	S	S	R
55	56	57	58	59	60	61	62	63
E	R	S	D	T	E	W	I	O
64	65	66	67	68	69	70	71	72
A	M	D	A	O	S	I	S	L
73	74	75	76	77	78	79	80	81
N	D	E	R	N	G	N	V	I

By beginning at a certain letter and following the king's move in chess (which is one square at a time, in any direction), using every letter once, the surnames of thirteen signers of the Declaration of Independence may be spelled out. Two were from Massachusetts, one from Delaware, one from Maryland, three from Virginia, and three from Pennsylvania. The path from one name to another is continuous.

BETTY GOLDSTONE (AGE 12).



Her words are pictures to a waiting world

S EATED upon a crude camp-stool she writes her dispatch. Glittering aides-de-camp surround her. A Grand Duke of the old regime attends upon her . . . explaining. Past he thunders squadron after squadron, sabres saluting. All of them gallant young men—soldiers riding gayly to almost certain defeat. Through the bitter air throbs the rumble of a distant drum . . .

She finishes her writing—and cables it. Next morning the world and his wife read—and visualize the sun gleaming dully on the clanking accoutrements of a Lost Cause.

Then . . . a month later, and 5,000 miles away. Her facile pen is picturing for millions the royal panoply of a King's coronation. The respectful hush in the great cathedral. The glamorous color of old world ceremony. How the King trembled as he ascended his throne.

The wide world is her field of endeavor. A hundred great papers bring her articles to the public. A tremendous assignment! How does she manage to do it? How is she physically capable of it? Well . . .

Not so long ago a large number of America's most famous women—writers, artists, actresses, business women—were asked how they managed to retain

their physical vigor and energy, despite the exhausting demands of their professions. Their reply was almost unanimous. "Through careful living", they said. "Particularly by care in choosing the proper foods, and balancing the daily diet properly".

The importance of proper food

These women pointed out the vital importance of proper food to health and vigor—and laid special emphasis upon the need for the right kind of breakfast, because it follows the long fast of the night. Many went on to describe their own breakfasts. And agreed that it should consist of a small, or moderate amount of easily digested food—afford-



Grape-Nuts is one of the Post Health Products, which include also Instant Postum, Postum Cereal, Post Toastie, Post's Bran Flakes, and Post's Bran Chocolate.



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ing a generous supply of well balanced nourishment . . . Exactly the kind of breakfast dietitians have been advising for years!

It is at this kind of breakfast that Grape-Nuts proves so beneficial. For a single serving of this famous food, with milk or cream, provides more varied nourishment than many a hearty meal. Grape-Nuts contributes to your body dextrins, maltose, and other carbohydrates, for heat and energy; iron for the blood; phosphorus for teeth and bones; proteins for muscle and body-building; and the essential vitamin-B, a builder of the appetite.

Grape-Nuts—and beautiful teeth

Grape-Nuts is made of wheat and malted barley. It undergoes a special baking process which makes it easily digestible—and also gives the crispness for which Grape-Nuts is famous. Due to this crispness, you enjoy chewing Grape-Nuts thoroughly—and proper chewing is important if the beauty and health of teeth and gums are to be preserved.

For its crispness and its delicious flavor—for its splendid nutrition value—give Grape-Nuts a trial. Have it at breakfast tomorrow morning. Your grocer will sell you Grape-Nuts. Or you can accept the free offer below.

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WHERE PLUCK WINS FOR AVIATION

(Continued from page 678)

obtained. He put it into a spiral so swift and tight that sudden blackness came over his eyes and he had hastily to pull it out. Then he determinedly repeated the performance to be sure of the accuracy of his data. He put it into steep dives from ten thousand feet at speeds much greater than the instrument could record, suddenly pulling up the nose sharply. He repeated each performance with engine on, engine off, at all sorts of speeds. He proved beyond doubt that the highest stresses known to an airplane are those incurred when pulling out of a dive sharply at high speed; and what is more important, he discovered that the factors of safety allowed for those stresses were not sufficient in the planes as they were then built, that wings might come off in a maneuver such as might become necessary any time in severe air combat. The higher strength factors shown necessary from Lieutenant Doolittle's tests were straight-

way adopted and a letter of commendation sent him by Air Corps chiefs; but they forbade further experiments along the same lines, stating that his life was too valuable to the service to be risked.

There is many a tale to be told where pilots gather. New men at the field always hanker to go up. A chap we'll call Brown had been wanting a flight for some time when one day one of the test-pilots made it possible. They were aerobating at about four thousand feet when the upper left wing calmly folded back upon itself. Fortunately, the pilot could get into the field without making a turn; but he could not cut down on speed, for if the wing once dropped, a spin would result from which the plane could not be righted. By splendid handling the plane came into the field at about ninety miles per hour, striking a puddle of water and splashing it twenty feet in the air. Before the plane had fully stopped, however,

Brown was out and, white as a sheet, was running away from it as if it might pursue him. The next week he resigned from aviation and went into the fox-raising industry.

All accidents do not result in fatalities or even the complete destruction of airplanes. Sometimes one of the test-pilots makes a poor landing, hits a stake he should have seen, or by a too short turn injures a wing-tip. Sometimes, although he never admits it, he gets lost. Oh then the joy among the test-pilots! They have a series of trophies for such occasions: the Flying Ass Trophy, the Dumb-bell Trophy, the Bone-head Trophy, the Oil-Can Trophy, the Alibi Trophy, and one or more of them are presented to the offender with appropriate remarks. The worst of it is, the recipient must keep them prominently displayed upon his desk until they can be passed on to some new offender. And heaven help the man who attempts to offer an alibi! There is



THE MEN WHO TAKE THE RISKS FOR UNCLE SAM

TOP ROW: MR. LOCKWOOD, LIEUTENANT "HARRY" JOHNSON, LIEUTENANT BARKSDALE, BETTER KNOWN AS "BOVY" OR "HIGH-POCKETS," LIEUTENANT HUTCHINSON, LIEUTENANT MOFFATT, AND MR. MEISTER; BOTTOM ROW: LIEUTENANT JOHN A. MACREADY, LIEUTENANT "FINICKY" AMIS, LIEUTENANT FOURTELLOT, AND LIEUTENANT "JIMMIE" DOOLITTLE

also a quacking "Jerry Duck" which springs into view at any remark that may be even second cousin to a boast. These flying trophies are not awarded for faulty pilotage alone, but for any mistake that may be made in connection with a test flight.

Once the instrument assistant, coming to remove the recording barograph after a check climb to 22,000 feet, found that the pilot had forgotten to have it installed, so that there were no records. That pilot got all the trophies and kept them until one day another pilot, ordered to take a plane for a saw-tooth, took the wrong plane and spent two tedious hours with it in the air.

Somebody discovered the plane which was to have been tested standing deserted on the line and spread the news, and they were waiting for him when he came down, waiting gleefully with all the trophies. But the test pilot learns early to take his "razzing" with a grin, and the warm good fellowship existing among them goes far toward lightening the risk and danger of their work.

Some day when flying has become such a usual thing that little children find it difficult to imagine a world without airplanes, and mothers and fathers don't consider that their lives are at stake when they go for a journey in the air, when the airplane has become so perfected that accidents due to mechanical failures are virtually unheard of, when the idea of danger is as far from the airplane as it is to-day from the railroad and steamship, people as a whole, perhaps will not remember, or even know, of the cheerful hard work and risk of life by test-pilots here and everywhere that lies hidden in the thing they so casually enjoy. But it will be tucked away there, just the same, knit into the very fabric of aviation's growth and progress. It is the test-pilot's great gift to the future.

BOYS WITH JOHN PAUL JONES

(Continued from page 709)

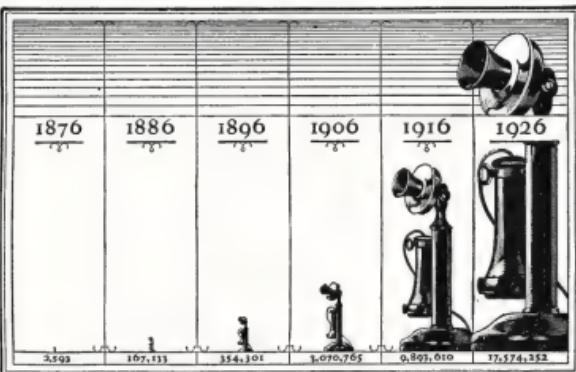
fresh supply of grenades and, with Fanning, renewed the assault. One of the grenades exploded some loose powder and did much damage. Another fell into the hold near the magazine. This, following the continuous shower of grenades, ended the conflict. Mayrant leaped upon the deck of the enemy in the midst of the confusion, followed by a brisk body of boarders. The *Serapis* surrendered; the boys had won!

Here Roberts was to appear again. The British flag had been nailed to the mast and when cries of surrender were heard, Jones gave orders to cease firing, but the excited men would not stop so long as the flag flew. So Roberts leaped into the rigging and reaching the ensign, tore it from its fastenings. It dropped from his hands and, fluttering in a puff of wind, fell at John Paul Jones' feet.

Captain Pearson was ungracious in

giving up his sword and spoke sourly about a man who "fought with a halter about his neck"—meaning Captain Jones, who, as John Paul, had been a son of a gardener on the Earl of Selkirk's estate in Scotland.

The boys were publicly thanked by the commodore for their valor on the deck of the *Serapis*. The good *Richard*, sad to say, went down in the sea with her dead, and the survivors sailed back to France on their captive.



Milestones in National Service

*An Advertisement of
the American Telephone and Telegraph Company*



THERE are twenty-five Bell companies but only one Bell System—and one Bell aim and ideal, stated by President Walter S. Gifford as:

"A telephone service for this nation, so far as humanly possible free from imperfections, errors or delays, and enabling anyone anywhere at any time to pick up a telephone and talk to anyone else anywhere else in this country, clearly, quickly and at a reasonable cost."

The year 1926 brought the service of the Bell Telephone System measurably nearer that goal. Seven hundred and eighty-one thousand telephones were added to the System—bringing the total number interconnected in and with the Bell to more than seventeen and a half million.

The number of applications waiting for service, including those in new and outlying sections, was reduced fifty per cent.

A third transcontinental telephone line was completed to the Pacific coast.

The largest number of miles of toll wire for one year was added to the System—more than 664,000 miles.

The average length of time for completing toll calls throughout the System was lowered by thirty-five seconds.

A seven per cent improvement over the previous year was made in the quality of voice transmission in toll calls. An adjustment was made in long distance rates amounting to a reduction of about \$3,000,000 annually.

TWINKLE, LITTLE MOVIE STAR

(Continued from page 690)

flying harness which fitted under her fish-tail costume. It slipped beneath her arms and around her waist, something like a dog's leash, and after much practice Vivi had learned the difficult trick of holding herself at a certain angle so as not to flop like a bag of dry cement caught up in the middle, while the property-man, holding the other end of the wire, off stage, hauled her aloft and hoisted her about.

From the boulder walls, a thousand chips of mirror glass reflected the dazzling "submarine" garden where, along the upper ledges of rock, lay the extra girls, their raven hair streaming, conch-shells held to their ears. "By the sea, by the sea, oh, how happy I'll be—" They chanted more spiritedly now, because, after many rehearsals, the scene was actually being shot.

Vivi drew in her chin, so she could peer down, not forgetting to keep up a gentle paddling motion with her hands. She was supposed to be swimming now, not flying, and seen from the front, through a wave-painted, gauzy curtain, Ben had declared the underwater effect was "plenty good enough for a kid's lunny dream."

Ben looked busy now, straddling the top of a step-ladder, his camera on stilts before him and a bandana hand-kerchief tucked in all around his wilted collar. And there were two, four, six other cameras aimed from other directions, all their handles rotatting simultaneously.

Down the coral-reef stairway lumbered Scamp, a lobster-shell completely hiding his head and body, while four pairs of legs sprawled fear-somely in time to the music. Vivi did hope he would behave, but she knew how he hated the stiff red costume in which he was supposed to have been already boiled and then have run away! He tried to roll out of it, most of the time off stage, but the trouble was, once he got on his back, he could n't budge until somebody put him right side up on his feet again. Two toy crabs were yanked by strings to look as though they were scuttling in terror out of his path, but Vivi, at the proper moment, registered joy and wobbled her fish-tail in an effort to descend.

Immediately, Mr. Jerome, who knelt on a high platform, his megaphone painted white so it could always be seen, waved it three times to the property-man and Vivi was gradually lowered down, down, until

she hovered gracefully above the boiled lobster's back. She could see his plugged claws dangling in front, and his shell hinged tail flapping with a funny, sideways motion behind. "Steady there, Scamp!" rumbled the director's voice through the singing.

"This is the end of the dream," thought Vivi, "and I must remember all the scenes I'm supposed to have lived through that haven't been taken yet—being changed into a mermaid, and my dog changed into a lobster, and all our adventures down here until, after he's captured the octopus and comes back to me, we're made Prince Claw and Princess Silvershell—that's just before I wake up—"

"Props!" called the megaphone voice again, "hold most of Vivi's weight up off the dog. Settle right on the middle, Vivi, and be careful, mind he does n't trip on your trailing fish-tail—that's the way.—Now, mermaids! Come, two by two, swinging, swaying,—feel the rhythm of the music. Fine! Only some of you look like angels going after *Little Eva!* Let your arms ripple more! Keep that languid, floating gesture. That's it! That's it!—Don't get your wires tangled.—Make a semi-circle when you all get in front of her, and bow low.—Now, big action, Vivi! Blow kisses, with both hands, gaily—gaily!" A final crash and the music stopped.

"Whew! That's over! I bet it's a hundred and four in here, by the thermometer!"

The extra girls collapsed wearily on the floor and their slack wires made glinting, quivering streaks, like rain, above their heads. "Why couldn't he have let us swim in some real water on a day like this!"

The tremendous candle-power lamps winked off, lessening the furnace heat by just so much. Perry, ducking under the transparent drop-curtain came running across to Vivi with a drink of water and a camp-chair. "Easy there, honey!" he exclaimed, and slid her carefully from Scamp's back on to the safer seat. "Harness hurt much? How do you feel?"

"Boiled in oil, thanks!" answered one of the mermaids, instead.

Perry grinned. "Cheer up, honey!" he cried, wheeling back to Vivi. "We'll be off where the cool breezes blow by dewy dawn! Tell your Mother, please, that there's not a thing left for her to do. I got the state-room all right, and Scamp can

bunk in there with you, if the conductor looks the other way. Our train leaves at six, standard time, from Grand Central, and we pull into Portland about seven-to-morrow morning. Heigh ho! Mrs. Bopp'll pack your costume as soon as we're through with this.—There's the boss hoo-hooing for me!" He chased off, and the girls, draped helplessly on the floor in their fish-tails, began sulking at the prospect of a night on the train. "Well, I hope it rains cats and dogs after we get there, so we'll have to stay a month!" said one.

Scamp had settled close to the wooden floor, looking like a giant June-bug that somebody had stepped on and squashed almost flat. His curved-under tail scraped back and forth, however, and Vivi would have leaned over and patted him if she was not so afraid of falling off the chair. Her harness was dangerously heavy.

"Nothing more to-day!" rumbled Mr. Jerome's voice again through his hand megaphone as the report, "O. K.!" was shouted from cameraman to cameraman. "Keep tabs on Scamp, Perry, and call the man who's playing the octopus. We'll take their fight scene next. Everybody else is finished and welcome to go. Thank you all very much!"

Property-men sprang forward and unhooked the wires from the steel swivel-loop in the center back of each harness. Next, Mrs. Bopp, like a shoe clerk, stripped off the fish-tails one by one, so the girls could walk, and placed the shimmering garments in the waiting tin trunks. A call-boy, trotting for the aisle of dressing-rooms, cried out, "Mr. Octopus! On the set, please, Mr. Octopus!", while Perry, returning to unfasten Vivi's wire, commanded Scamp to "sit on that crack and don't budge, sir!" after which he slung Vivi jubilantly across his shoulder and carried her to her own door.

"Mrs. Corelli, Madam! May I come in? A small package of fresh fish for you!" He pushed inside, letting Vivi slip onto the trunk lid.

"Oh, Perry! Is there anything else—" began Mother, stepping forward.

"Nothing except for you both to get a square meal before train-time. I guess we'll board at some farmhouse up there in Maine and they may not feed us fancy. Say, is n't it great the way Mr. Jerome gallops through a week's work in one afternoon, with no fuss and no retakes! Oh, and if I should n't reach the sta-

tion first, to give you your tickets, just say 'Company' to the gatekeeper and he'll let you through to the train all right. Well, excuse me, folks, I've got to hustle." The door slammed shut on his "Toodledee!"

"Mother," said Vivi, noting how bare the dressing-room seemed with everything packed,—even her make-up tray had been emptied, and on her dressing-table there was left only a fine coating of pinkish powder,—"Mother, if the conductor makes Scamp sleep in the baggage-car, may I go with him?"

"Gracious, no, darling! You can't sit up on a pile of trunks all night! Don't be silly."

"But I want to sit up! I might miss something—"

"Now, Vivi, please be reasonable!" pleaded Mother, helping her undress. "You've got to be well rested so as to work to-morrow, and there'll be no other chance for any nap. You know how frantic Mr. Jerome is, with only three more weeks left to finish the whole picture—"

Vivi had opened her lips to argue, but closed them again instead. "Is that all?" she asked finally in a small voice. The time had really gone so quickly.

"Umm—" mumbled Mother, reaching into the tray of her suitcase for a jar of cold-cream. "And to think of traveling way off up there just to find some grotto! I suppose we might as well try and enjoy the trip, even if you are rushed to death every minute!" She unscrewed the top of the jar and transferred a finger-load of fragrant grease to Vivi's chin. Vivi nodded, cautiously. She could guess why "Silvershell" had to be finished by the end of August—when her contract would expire, but, so far, Mother had not seemed to understand the reason. . . .

UNFORTUNATELY, Scamp offered his paw to the conductor on the platform, and so Perry was obliged to accompany the dog to the baggage-car. "Now don't you worry, honey," he comforted Vivi, the last thing. "I'll take good care of him, you can just bet!" So Vivi watched them walk ahead into the gloom, Scamp carrying his muzzle disdainfully in his teeth.

Then she stumbled after the porter into the sleeping-car, which seemed to be nothing but two high walls of green curtains. These began to swish to and fro, presently, and the extra girls dived in behind them, giggling and chattering. Mother pro-

phoned Vivi along to their state-room and tucked her into the lower berth.

It was startlingly cool when she awoke, and the train was no longer jiggling at all. She could sit up nicely in the little boxed bed, but Mother, already dressed and hatted, kept bumping her head and elbows as she tried to prod and button Vivi into her clothes.

"Oh, look! The porter put up a hammock for my doll, and I never even brought one!" said Vivi, huskily. Leaning across the narrow berth she raised the shade and peeked out. "Does that big sign mean 'Portland'?"

"Yes, yes, darling! Don't stop now to study spelling!" replied Mother, as once more she pushed Vivi down the aisle and out through the crooked vestibule to the station sidewalk.

Vivi looked eagerly about and said good morning to the extra girls—she could pick them out because they carried their own suitcases, like all movie ladies. "Isn't Scamp off yet?" she inquired of Mr. Jerome.

"What, Toots? Oh! Maybe Perry's taking him for a bit of run before coming in to eat. Would you mind, Ben, having a look up the street—" and the director waved everybody inside with the warning that they must be through breakfast in twenty minutes. Another train, he explained, would carry the company on to Crabapple Cove.

At the restaurant counter he spun a revolving seat around until it was just the right height for Vivi, and gave Mrs. Corelli the menu card. They both ordered in a whisper, Vivi deciding against the shredded wheat crammed into a fish-globe which sat, upside down, on the counter. "And I'll have some cornflakes and milk for my dog that'll be here in a jiffy," added Mr. Jerome, smiling to the waitress. She smiled too.

They ate hurriedly and in silence. The waiting cornflakes lost their crispness and uncurled, puffy and flat, in the milk. When Ben came back, Mr. Jerome went out for another survey of the street. He returned almost at once. "No one," he remarked quietly, "has seen a man with a dog."

Ben choked on his hot drink and jumped up. "The baggage-car—"

"I want to come too!" cried Vivi, grabbing his arm.

"Inquire at the freight-office!"—"Ask the conductor!"—"Find the expressman!" called different members of the company.

Vivi was scared as she ran between the two men out across the bare tracks and alongside the emptied train.

(To be continued)



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THE WHITE KING OF THE ARABS

(Continued from page 670)

days before the war. The story had been told to him by natives. I mentioned it to Lawrence several times, and he neither denied nor verified it, but simply laughed in the quiet way that he always had whenever any one mentioned any of his exploits. At any rate this gives us some idea of the reputation the young man was building up for himself before the World War came along.

In 1914, when the kaiser's armies poured into Belgium, young Lawrence was still working as an archaeologist out there in the desert near ancient Babylon. He immediately rushed home, and like very many another loyal English youth he offered his services to his country. His thoughts were not of leading armies, nor of making new frontiers, nor of creating kings and princes. He merely tried to join up as a private in "Kitchener's Mob." When the medical examiners looked at him they winked at each other. He was so small that he seemed anything but material for a soldier. Moreover his blue eyes and light hair added to his boyish appearance. He was only about five feet three inches in height, and they told him he was too small. They told him to run along home to his mother and suggested that he wait and volunteer for the next war.

But in the end the laugh was on the medical examiners, instead of Ned Lawrence. What would the members of that board have thought if some one had told them, the day they rejected him, that before the World War came to an end this little fellow would have placed himself at the head of an army, helped drive the Turks from Arabia, Palestine, and Syria, made himself the equivalent of a lieutenant-general, and won the distinction of being one of the outstanding figures in the long and glorious history of his country? I wonder what those examiners think about it all now?

So Lawrence returned to his beloved ruins. But not for long. It soon became evident that the war could not be confined to Belgium and

northern France. The battle line quickly stretched a third of the way around the world, from the North Sea all the way across Europe and part way across Asia to the Persian Gulf. The Germans were joined by the Austrians, Bulgarians, and Turks. The Turks had at one time been the rulers of Egypt. Now it was in the hands of the British, and the Turks hoped to capture the Suez Canal and regain possession of their old empire in Egypt. This made it necessary for the British to defend Egypt and the canal. One of their ways of doing this was to build up a secret corps of spies and special agents who could go among the different races in the Near East and win them over to the British. A general named Sir Gilbert Clayton was in charge of this work, and he called to his headquarters at Cairo all of those unusual Irishmen, Englishmen, Scots, and Welshmen who had been devoting their lives to work of a sort that would qualify them for dealing with native peoples. Among these was young Thomas Edward Lawrence.

At first his job was to take care of one of the offices where maps were kept. Generals used to come into his room to look at the maps and talk over plans. Frequently they would turn to the youthful lieutenant and ask him what he thought of some scheme they had in mind. Nearly always he was able to point out that even though their plan sounded good

it would not work for reasons that the generals knew nothing about, simply because the country was strange to them. Lawrence, on the other hand, knew the desert camel-routes, the paths of the sheep-herders, and the half-buried roads made long, long ago by the armies of the Romans, Greeks, and Crusaders. This enabled him to take the plans of other staff-officers and make them workable. Naturally he soon gained something of a reputation, and people in Cairo began to hear of this young man who knew so much about the Near East and its peoples.

But Lieutenant Lawrence, like his friends the desert tribesmen, was an independent fellow. He had never been accustomed to taking orders from other people. For years he had been giving orders. He already was a leader of men. So independent was he that he went right on living his own life in Cairo without paying much attention to the rules of discipline that go with war. Although he was now supposed to be a soldier and an officer of the king, he dressed just about as he liked, polished his boots when he thought about it, which was not often, and appeared on the streets without his Sam Browne belt. So busy was he with his own thoughts that he seldom paid any attention to generals whom he met and even failed to salute them. Of course this caused much comment, for it was an unheard-of thing for a lieutenant to treat his superior officers as though they did not exist.

They overlooked many of his strange ways because they needed his advice. Had it been any one but Ned Lawrence, they would have thrown him into the guard-house.

The first two years of the war went by. Lawrence had done such excellent work at headquarters in Cairo that he had already been decorated by several governments. Then in 1915 came the outbreak of the Arab rebellion, the revolt in the desert that was to transform this scholarly young staff-officer into a romantic hero and the leader of a wild Bedouin army.

(To be continued)



COLONEL LAWRENCE AND LOWELL THOMAS

TREASURE-TROVE

(Continued from page 698)

ber now that I forgot them," Nat acknowledged; "but this is no time for unimportant matters, Rosy. Tell me, I pray you, hath Sal come safe back?"

"Aye," said Tanis, surprised; "why should you bother? She is but washing her face and hands before she eats."

"Then how in all this world came a strange man by the basket I made for Mom?"

"Oh, ho!" said Tanis, "now I see the drift of your remarks. He got it from me."

"You sold him that basket?"

"That I did not," Tanis answered indignantly. "'Twas none of mine to sell."

Ere thin the constable and Tom Grubb had brought their captive to the cottage step, where they stood listening to most of the foregoing conversation.

"Then if I may make so bold, miss," the constable spoke with considerable deference, "how did this man come by the basket?"

"He stole it from me."

"You identify him as the thief, miss?" The constable's hold on the German's arm tightened.

"Nay," Tanis replied, her brows wrinkled in puzzlement, "how can I do that when I ne'er had a chance to see him?"

Briefly she related how she had been assailed from behind.

"Eecod!" cried Tom Grubb, who, however, no matter how the constable's ideas might shift and change, was now firmly of the opinion that they had hands on a very dangerous character and did not for a moment relax his grip, "are we never to trap this fox?"

"He said Sally sold him the basket," Nat declared with a flash of memory.

"Aye!" the German asserted sullenly. "That's Sally there." He pointed to Tanis. "She sold it to me—and now belike she'll make me out a thief to pouch the money herself."

At this accusation, before Tanis had time to answer, Tom shook the prisoner till his teeth rattled in his head.

"Think shame to say such words to the quality!" he exclaimed.

"Quality in this hotel!" The German, unsubdued, rapped out, and the constable looked worried.

"'T is the word of one against the other," he mumbled. "We have the

basket safe back, and I can see naught for it but to let the man go his way."

This conclusion of the matter would save him a vast deal of trouble, the constable reflected, as the set table in the cozy kitchen reminded him that his own supper-hour was nigh. After all, who was this strange girl at Dame Good's? Queer rumors were afloat about her. The children's Aunt Charity had told his own wife's sister, only the day before, that she claimed to come from New York, yet knew none of the honest folk

Mistress Charity had met in that town on her celebrated visit there. It might be that she was not trustworthy.

However, in thinking to have found an easy solution of his difficulties, he reckoned without Ann. The child, shaken in her own esteem, had not put herself forward as was her wont, but had stood listening, waiting breathless for some mention of the precious box.

Tanis had not referred to it because comparison of the hour when she had been robbed with the hour Ann had lost her box made it seem unlikely that the same thief had perpetrated both crimes; for surely, she had argued, no guilty man would have stayed so long near the seat of his first outrage. Sally and she were both convinced that there must have been two robbers, and had reached an agreement to accept the loss of the casket. It had come mysteriously, it was gone mysteriously; and much though they mourned its loss, as Sally had not felt an absolute ownership of it, it seemed useless to stir the matter up.

But when Ann saw the thief about to be released, her sense of justice rose in arms. "Wait!" she cried. "Primrose ne'er saw him, but I did. Ask him where is the box he stole away from me, after all his promising."



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(To be continued)

THE SHADOW ON THE DIAL

(Continued from page 708)

gon of slang, he explained the peculiar riddle that seemed to involve his and Leila's future home.

"So you see," ended Ronny, after giving her all the details to date, including their hunt that afternoon for clues among the old judge's marginal book-notes, "that's about as far as we've got up to present report."

His sister regarded him speculatively for a moment. Her arms were folded and she had been staring into the fire as he talked. Almost her attitude had suggested bored indifference. Presently she spoke and electrified them all.

"This is a funny little old town," she began with apparent irrelevance. "Did you ever go to any of their afternoon tea-parties, girls?"

"Not very often," answered Naomi, wondering what all that had to do with the matter in hand. "Hardly ever, I should say."

"Well, you'd better go to one sometime," replied Leila, cryptically.

"Why, what do you mean?" they demanded in chorus.

"I know you don't see what I'm getting at," countered Leila; "but the best way to show you is to tell you about what happened this afternoon. I went with Mrs. Fletcher and thought I was going to be bored stiff listening to all those old ladies talking; but instead of that, I got a regular thrill taking in all that went on. Say, do they ever talk about anything else beside their ancestors? Seems to me that's the principal topic."

"Their ancestors!" murmured the other two girls, slightly puzzled.

"You said it! I don't think there was a name mentioned but some one would say: 'Mrs. So-and-so? Oh, yes, her grandfather was Colonel Thingumbob, was n't he? They came from the Thingumbobs of Something-or-other County.' And then some one else would say: 'No he was n't—anything of the sort. Colonel Thingumbob was my grandfather's brother and no relation whatever to Mrs. So-and-so. The So-and-sos never were any account, nohow!' And then they'd have some battle back and forth and every one would take sides, till finally they'd got that matter settled. It was too funny."

There was a general giggle at Leila's description, and the girls could not but acknowledge that they recognized the brand of conversation. "Yes, we've heard it all so much that we never think about it or listen to it any more," laughed Naomi. "But if you don't mind explaining, Leila, has

this anything to do with what we were talking about? I don't see the connection."

"It's got a whole lot to do with it, if you'll just let me tell what happened before the show was out," went on Leila. "Just before we went home, Mrs. Bartow, the lady of the house, went out to the kitchen to get refreshments ready and Grandma Fletcher went out to help her, I guess. Anyhow, while she was out of the room, two of 'em got after me and started the ball rolling by saying they'd heard my father was going to buy Pettigrew's Folly and asked me if I liked the place. I said it would be nice when he got that old rattle-trap pulled down and a new house put up, and you ought to have seen the look of horror on all their faces! One of 'em spoke up and said: 'It pretty near broke Randolph Cotesworth's heart when the old judge left that place to his second wife instead of to him—his only son. There was something mighty queer about that, too. Everybody thought Randolph had done something pretty shady that the old judge must have found out about or he would n't have cut him off like that.' And then some one else spoke up. I can't remember her name, but she's a perfect shark at that sort of thing. She said: 'You don't know what you're talking about, Hattie Shellman. You're related to the Cotesworths and you've no business to talk that way. Of course, it's only by marriage and a good way back, but I should think you'd be more loyal. Randolph Cotesworth never did a thing in his life he ought n't to. The old judge was a perfect crank on some subjects and they say he got it into his head that Randolph—'

"And just then some one said, 'Sh-h, here comes Cordelia Fletcher back!' But the one that was talking—I can't remember her name, but she has big snapping black eyes and a tight little mouth,—she whispered, 'Well, you know what I mean—that oak affair—' And then she didn't have a chance to say any more; but they all nodded solemnly and took to their knitting again."

"That was Cousin Frances, no doubt," murmured Enid, "the one with the tight little mouth. She is rather sharp-spoken."

"You said it!" assented Leila. "I could see that with half an eye. And the way she buttoned up that tight little mouth and rolled those black eyes around the room! There wasn't anything else very interesting hap-

peneed after that, but I could n't get just that last out of my head. I wanted to ask your grandma about it on the way home, but I somehow could n't screw up the courage. If they did n't dare talk about it before her, I sure did n't have the nerve. It was stuck in the back of my mind all this evening while you were telling me about this and I began to wonder if there was any connection."

"You just bet there's some connection!" put in Ronny, excitedly. "You're some little *Sherlock Holmes* yourself, Leila. I have to hand it to you. You've landed on the very thing I've been addling my brains over all the afternoon."

"What's that?" she demanded, obviously pleased and gratified at his praise.

"That there's something queer that thin here Randolph was supposed to have pulled off. Not that he really did—we don't know whether he did or not; but anyhow, the old judge must have thought he did, and that's what the whole business hinges on. Evidently, it was n't a secret just kept in the family, for others seem to know about it. Now it's going to be our business to chase down just what it's all about. You got the first hint this afternoon. That old lady, 'Cousin Frances,' said something about an 'oak affair,' did n't she? Sounds like a piece of furniture to me—but you never can tell! Have you girls got any idea about it at all?" He ended by turning to Naomi and Enid. Both of them looked rather puzzled.

"I certainly have n't," declared Naomi. "It does n't seem to mean much, does it? But I'm sure we could ask some questions of Grandma that would help us out."

"I would n't," asserted Ronny. "From what you say, the old lady does n't like to talk about it much, and if she's sore on the subject, we ought n't to bother her about it—just yet. We'll save that as a last resort in case we can't get at it any other way."

"I was just beginning to wonder," he continued, munching one of the red-cheeked apples Naomi had passed around, "when you girls—I mean Enid and Naomi—were going to fall upon me and demand that I tell you what I discovered this afternoon."

"But you asked us not to!" cried Enid. "You did n't expect we were going to bother you about that till you said something else yourself, did you?"

"Well, all I can say is, you're different from most girls, then! I did n't want to tell you this afternoon, 'cause it was a bit too vague and I hardly knew whether it meant anything or not. But since Leila gave us her line of talk about what happened to-day, I got another hunch on it, and perhaps it would be just as well to talk it over. Did you ever hear tell of any one connected with the judge called 'Bolton Lawrence'?"

Naomi and Enid both shook their heads. "I don't remember ever having heard the name mentioned," said Naomi; "but Lawrence is an old family name in the State. Perhaps Grandma would know—if we could ask her without giving away too much."

"Well, don't do it just yet," said Ronny, hastily. "I ain't just ready to open up about that for the present."

"But what did you find?" demanded the impatient Leila. "You sure are the limit for mixing it up and then leaving every one guessing!"

"Pipe down, old girl, I'm coming to it!" grinned Ronny. "I spent all my time this afternoon looking over an old law-book. It was called 'Blackstone on'—something or other, but the title does n't matter. The main thing is that it must have been a favorite of the old judge, because he'd scribbled a lot in the margins—sometimes law notes I could n't understand and scraps of things that did n't mean much, anyhow. But in one place he'd written something and crossed it all out, but not quite enough but that you could make some of it out if

(To be continued)

THE STUBBORN STARRATTS

(Continued from page 704)

blinked stupidly. The ground seemed fairly alive with men and women and children, scrambling for the purple fruit, filling buckets at an amazing rate. An invasion! What new deviltry had old Wagner's brain contrived?

Dick strode grimly down the row. Jake Kelly met him with a big hand outstretched and filled with currency.

"Some crew, Dick!" he grinned in delight. "When Hank told 'em about your chicken dinner, they walked out an' left old Ben flat. Serves the old buzzard right! Here he comes!"

The reaction flooded Dick Starratt's heart with a warm glow. Success for himself—for Del! This was his moment of triumph; but the sight of that bent, beaten old figure aroused only a feeling of pity.

you tried pretty hard. I'd brought along a small magnifying-glass just for some such emergency as that, and I used it—good and proper. And this is what he'd scrawled:

"If I could only be sure how much Bolton Lawrence really knows—what his motive is. He was never under the oak—but..."

"There's the 'oak' again, you see, and it sure must mean something. And who's *Bolton Lawrence* and what's he got to do with it all?"

Ronny sat back after this disclosure and folded his arms, watching to see the effect of this latest discovery on his hearers. That they were satisfactorily stirred by the new problem, he could n't doubt; but before they had time to discuss it, they heard Grandpa Fletcher coming on the back porch.

"We can't talk it over any more to-night, I reckon," breathed Naomi; "but I'll say you've made some find this time, Ronny! The next thing we must do is to hunt down what we can about this Bolton Lawrence, is n't it?"

"Say, girls," interrupted Leila, in a hurried whisper, "I wonder if you'd mind if I ask a favor? Would you care if Ronny and I took the ponies and went over to Pettigrew's Folly while you're at school tomorrow morning? I've got an idea myself about something and I want to look it up before we lose another minute on it. You don't care, do you?"

The girls both gave their instant and unanimous approbation, marveling more than anything else over the remarkable change in Leila.

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CHUCK BLUE OF STERLING

(Continued from page 713)

Constance began to shiver; a little cry of terror slipped from out her lips.

Bess still had her arm about the girl; she drew her closer. "I'm going to talk—after all," she said with intensity. "I don't like it out here. I might as well admit it."

"That awful sound—it frightens me!" cried Constance. "Will something hit us?"

"No," said Hap, sharply.

"It sounds worse than it really is," Bess added.

Chuck's brain was working rapidly. "Hap, come here!" he called, and Hap moved up beside him. "My compass is broken," Chuck whispered. "I don't want to tell the girls just yet. I think we're headed all right. But hunt around will you, and see if Old Bill's got a fog-horn stowed away somewhere. We may need it."

Hap did as he was bid, but his search was unsuccessful. He came and told Chuck.

"I ought to have thought of it before we started," Chuck muttered. "Careless!"

"Heck, it's not your fault!"

Hap whispered back.

A feeling of irritation came over Chuck at the predicament they were in—not one of panic; he did n't lose his grip on himself. Then his feelings changed to one of a cold but calculating anger. He shut his teeth. The situation was up to him; he'd get them out of it—he'd have to!

On they went, cutting through the fog, yet still no lights broke out to cheer them. Chuck shut the engine off again and listened; no sounds but those of distant fog-horns and the swish of water against the boat.

"What were you two whispering about a few minutes ago?" Bess questioned. Her voice was strained. "I've tried to keep from asking, but I can't help it—I've got to know."

Chuck turned and faced her.

"I think probably I'd better tell you," he said slowly. "I don't know where we are, and my compass is busted. I thought we were heading in all right, but the boat may have swerved when I shut the engine off that last time.—And we have n't any fog-horn.—There! you know the worst."

A feeling of fright came over Bess, and with it a thought of her mother at home, waiting—waiting. Maybe something would happen and she would keep on waiting.

"We may be out all night," Chuck

went on deliberately. "We've got to face that. If the fog lifts, it's a different matter."

"We'll hope it lifts," said Hap.

Chuck let the Covered Wagon drift; he considered that it was safer

on, as he felt sure that it was now, direct for the Connecticut shore.

He saw the lights shine out through the fog, more distant, less distinct than those of the other boat. Fewer lights—it must be smaller craft. Then the boat passed by, the lights began to fade, and Chuck sent the Covered Wagon on at greater speed.

But suddenly he caught the glimmer of a single light, and with it a solid mass loomed up. He turned the wheel to port—too late! The Covered Wagon struck a glancing blow. Chuck sensed the situation in a flash—a tug with a tow was passing—and they had struck a barge!

A startled pause, a stifled scream from Constance, and simultaneously the boys began to shout, then paused to listen; but no answering shouts came back.

"Take a look forward!" Chuck cried.

Hap scuttled down into the cabin, and quickly came back.

"Water's seeping in a little," he said, "she's splintered. And there's a bad hole up above the water-line."

Constance screamed again. Bess tightened her grip on the girl.

"Stop!" she cried. "Stop!" and the sharp command in her voice brought Constance to herself.

"We'll get into my dory. Draw her up, Hap," Chuck commanded.

Hap pulled the little rowboat up, and the two boys helped the girls aboard. They handed Bess a can of water and the baskets with what was left of the picnic provisions. They themselves took aboard two lanterns; then they cast off.

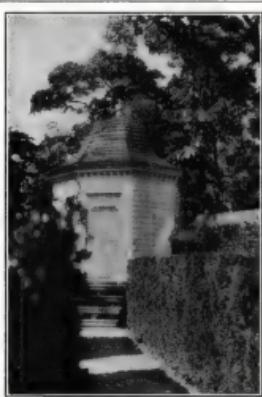
IT was about nine o'clock that evening. For a half-hour or so, back in Sayville, Mrs. Tilden had resolutely refused to allow herself to worry. But finally, her anxiety increasing, she telephoned to Mrs. Blue.

"No, the young people are n't here," Mrs. Blue said in answer to the call. "I thought they must have come in and gone up to your house. I've been a little worried myself."

"They'll be in shortly, of course," Mrs. Tilden commented. "But I'm restless. I think I'll walk down to the bridge."

"I'll meet you there," said Mrs. Blue.

But at the bridge they caught no sight of the Covered Wagon chugging up the river, no sound of distant, laughing voices coming closer. Drawn together in their anxiety the two women waited.



THE SCHOOL-HOUSE AT MOUNT VERNON

now to do so. He kept a strict lookout ahead, and Hap kept his eyes astern. And so the minutes passed.

But now came the nearing sound of a fog-horn, rising with growing distinctness out of the distant blares. They were nearer the path of the night boats than Chuck had reckoned. He started the engine and pointed away, as he thought, from the course of the on-coming boat. But suddenly a blare boomed out of the fog near them, off on their port-side bow, then they caught a swiftly brightening glimmer of lights, and a colossus of a boat, or so it seemed, rose up beside them, not fifty yards away.

Constance and Bess jumped up with startled cries. But in a few moments the boat was gone and they were catching the wash of the waves it had made.

Chuck turned the wheel and veered direct to starboard. "Got an idea of direction now," he muttered half to himself, then he called to the others: "We're headed right this time. Sit tight and don't worry."

But shortly another fog-horn blared out ahead of them, a little to port. Chuck slowed the engine down, alert to let this other boat go by and then to keep the Covered Wagon headed

(To be continued)

OB AND THE OAT THIEF

(Continued from page 694)

other wonders he had seen in Ob's hole, and remembered the northern lights and how they came from the glow of the cave. Nor did he go to bed. At one time he decided to, but when he sat on its edge and found it smooth and soft, he knew that he could have no sleep in so easy a couch. Besides, as he told himself, if he were the richest man in the world for a night, it would be folly to sleep through so glorious a time. And he always declared that he did not close an eye.

For all that, a thundering knock at the door made him jump, and he found that it was already the gray of early dawn, and he should have been afoot an hour earlier. He stumbled with half-shut eyes to the door, and opened it, to see the camp-master in a furious rage, scolding heartily.

"Who has been riding the horses? Is this the way you look after them? And who has been stealing their oats?" he cried.

"Say nothing about horses or stables or oats," said Pierre, "I am rich enough to buy a thousand horses and a hundred sawmills. Step inside and see the wonders of my house; it's gold and silver and silk."

"Is the man mad?" asked the camp-

boss, who saw nothing but rough table and stool, greasy plates and dirty pannikin, an unswept floor and scattered oats; because that was all there was to see, except an unwashed Pierre and a neglected house.

"To be sure it has vanished," said Pierre, "but my friend Ob took me to the place where all the riches of the world are kept. And here is the lid of the hole where the treasure lies hid." As he said that, Pierre took the mud and stones from his pocket which he had scooped up the night before.

"Now who but a fool would talk like that?" asked the camp-boss. "And as one fool makes many, you had best be going about your business, for a work place is no corner for fools."

"I have great wealth, indeed," said Pierre. "So what care I for your work?"

"Then take your wealth and be gone," said the camp-boss.

And thus it was that Pierre went out to seek his hidden fortune. If you meet him, as you may, he will tell you of great wealth, far away, to get which will need nothing, but a little money. But it will be your money he seeks. Remember that!

THE WATCH TOWER

(Continued from page 726)

But since the war there have been great changes in Turkey. Kemal Pasha, head of the government at Angora, set out to revolutionize Turkish life along western lines. His wife, Latifa Hanoum, worked for the advancement of the Turkish women. She won for them social freedom, so that they no longer live in seclusion. They are going to college and entering the professions, and taking jobs in the world of business, in stores and offices.

Yes, Turkey is being modernized and westernized! And relations between her and the United States are being renewed. Since the war, we have been represented in Turkey by Admiral Mark Bristol, who was known as American High Commissioner. We are now sending Joseph Clark Grew, who has been Under Secretary of State at Washington, to be our ambassador at Angora. We wish him luck!

GOVERNING PORTO RICO

Governor Horace M. Towner is well liked by the people of Porto Rico. It is not easy to find an American

Governor who can win the favor of the island people. American executives are apt to be too "bossy" for them. The Latin-Americans have that Spanish way of doing even unfriendly things with a great show of courtesy, whereas an American is likely to do a favor with a certain briskness, perhaps even crustiness of manner.

The Porto Ricans look forward to the time when they may be admitted to American Statehood. Governor Towner has been known to regard this ambition with favor. At the same time, he has told the Porto Ricans that their people need more education first. Somehow he has managed to do this without giving offence.

As a preliminary step, the Porto Ricans thought it would be fine if they could be permitted to elect their own governor. Mr. Towner seems to have encouraged them to hope that a law might be passed by our Congress giving them that privilege, beginning in 1932. President Coolidge made a statement expressing hearty disapproval of this suggested legislation.

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FREE! Beautiful set of 10 unused Japonais 1920 cat. \$1.81 to all who ask for stamps on approval. Farnie, Stamp Co., Greensburg, Pa.

NEW ISSUES

GREECE: Those interested in Grecian history will be pleased with the new series of postage stamps just placed on sale in Athens. The series runs from 5 lepta to 25 drachma inclusive. The lepta values are upright rectangles and through the 50-lepta are printed in one color. The higher values are printed in two colors, with the drachma values in horizontal rectangles. On the 5-, 50-, and 80-lepta there is illustrated the Corinth Canal. The 10-lepta shows a woman in Dodecanesian costume, while the 20-lepta shows a woman in Macedonian costume. The monasteries of Simon Peter is



A NEW MONGOLIAN STAMP

found on the 25-lepta, while the White Tower of Salonic is upon the 40-lepta. The Theseum Temple is illustrated on the 1- and 10-drachma; the Athens Acropolis is shown on the 2- and 25-drachma; the Greek cruiser Averoff is shown on the 3-drachma, while the Athens Academy takes its place on the 5- and 15-drachma. The stamps were printed in Corfu

the former zig-zag rouletted issues. MONGOLIA: A curious stamp bearing the value of one mung has just been issued by this country. The stamp is of peculiar design showing the value in English, as well as in the Mongolian characters.

One hundred mungs are equal to one tuhruk, which is nearly \$1.50 in our money. **NEWFOUNDLAND:** Announcement has been made that Newfoundland will issue, early in January, a new pictorial set illustrating historical events connected with this British Colony.

UNION OF SOUTH AFRICA: Five more values of the pictorial issue, of which the first ones appeared about a year ago, have just been placed on sale in the Union of South Africa. These values are the 2-pence, depicting the Union Buildings at Pretoria; the 3-pence, showing the Groote Schuur, the official residence of the Union Prime Ministers; the one shilling value, adorned by the Arms of Natal; together with the 2-shilling 6-pence, and 3-pence with ox-wagon. The new 10-shilling value is expected shortly and this will show a view of Table Bay. **UNITED STATES:** The new rotary prints, perforated 11 x 10½, from one cent to ten cents inclusive, are now available. It is expected that the ten-cent Special Delivery, with this new perforation, will appear in short order.

NEW BURGOYNE STAMP

THE Postmaster-General has announced that a new stamp, commemorating Burgoyne's campaign, and more especially the Battle of Fort Stanwix, will appear early



THE ACROPOLIS AND THE GREEK CRUISER "AVEROFF"

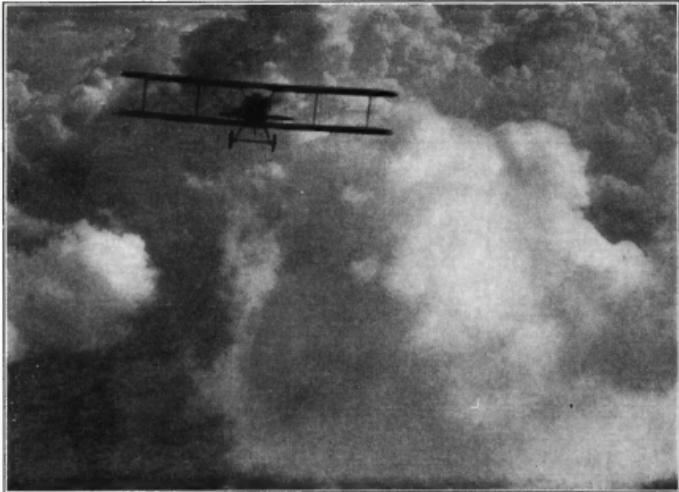
in August, along with the stamp which we have previously described commemorating the Battle of Bennington.



A VARIETY OF SUBJECTS ARE OFFERED IN THESE LEPTA VALUES

by Aspiotis Frères from plates engraved in London. We are glad to see that the current set is perforated so that collectors will not have the difficulty in tearing them apart, as was necessary with

the first display of the Stars and Stripes in the face of an enemy occurred on October 3, 1777 at the defense of Fort Stanwix, whose site is now included in Rome, New York. This new variety will



FIRST IN THE AIR

ST. NICHOLAS readers are better able to appreciate Captain Lindbergh's great triumph than are the average boys and girls. For more than two years, they have been reading in the pages of this magazine interesting, authentic, up-to-date information on flying, articles by one of the experts of the United States Army air service, stationed at McCook Field. This very issue of St. Nicholas carries the tenth article in this series, "Where Pluck Wins for Aviation," and when you read it, you will gain some idea of the care Uncle Sam exercises in the testing of his machines — the same care Lindbergh exercised and, because of it, won through to Paris.

Next month, we expect to print an article on Lindbergh's flight, by A. M. Jacobs, who is now in France.

We shall also give you an article by Captain Hawthorne Gray in which he describes his recent balloon flight when he reached a height of 42,470 feet — a new world's record! The plain tale of this climb is fascinating reading.

So, you see you will be "up in the air" in the matter of aviation without St. Nicholas. And the August number will have a lot about the sea, too, which, next to the air, is our most romantic element.

Every number of St. Nicholas is a *feature* number and worth many times the price asked. Use the attached coupon for the beginning of a fine friendship! Don't delay, else you will need to use the air mail!

THE CENTURY CO., 353 Fourth Avenue, New York City.

Gentlemen: Please find enclosed \$4, for which send ST. NICHOLAS for one year (two years \$6.50) beginning with the August number, to

Name Street

City State

Off to Camp

BOYS and girls who have made definite plans as to which camp they are going to attend this summer have begun the first lap of their journey into camp-land. Duffle bag will already have been sent; steamer trunk will be on its way and just the things one needs for immediate use will be carried by hand.

If we could follow these boys and girls, we would hear their hearty laughter on the trip; we would witness their joy in meeting old friends; their delight in making new ones. On arrival in camp, we would see them discard their conventional clothing and don camp togs. And then—well, I wonder if words can express the beginning, or any part, of that glorious two months' adventure.

Are you prepared to go to camp? Have you made your arrangements as yet?



The Camp Directors' Meeting

Do you realize what the Directors of our good camps are endeavoring to do for you? While attending the Annual Meeting of the Camp Directors' Association, held in Philadelphia March 11th and 12th, the following were some of the benefits of camp life discussed by them:

- "Make useful individuals of our girls and boys."
- "Give them self-reliance; a greater love and appreciation of nature."
- "Make them reliable citizens instead of ailing dependents."
- "Teach them to be free from self-consciousness; to become natural leaders."
- "Teach them how to use leisure, and to find out what other people have to give."



Just think, boys and girls, not only does camp mean happy days full of pleasure and sports, but it gives you the opportunity to do some independent thinking; to assert yourselves; to develop your finer instincts, and to be helpful to others.

Your directors and their well-chosen assistants are constantly watching out for your good; are always willing and ready to help you, to encourage you, to enlighten you.

If you have not as yet made a decision, do it now. If you wish me to assist you, write in and I will be glad to help you as I have hundreds of our other boys and girls. State your age, about how much you wish to pay and where you want the camp. Address your communication to

Lillian R. Matlaw
ST. NICHOLAS SCHOOL AND CAMP SERVICE

353 FOURTH AVENUE

NEW YORK CITY



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